The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees

VOL. LIV, No. 24 CHICAGO, ILLINOIS JUNE 11, 1910

METHODS FOR EXTENDING POPULAR EDUCATION IN PUBLIC HEALTH AND PREVENTIVE MEDICINE*

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PHILADELPHIA

If a text were necessary for my address to you to-day, I should at once select the declaration of the revered Pasteur that "it is within the power of man to rid himself of every parasitic disease." Correlated with this is the more recent and almost equally impressive statement of Prof. Irving Fisher that "fifteen years at least could be at once added to the average human lifetime by applying the science of preventing disease," and that "more than half of this additional life would come from the prevention of tuberculosis, typhoid, and five other diseases, the prevention of which could be accomplished by purer air, water and milk."[1]

Note that this latter authority says that these results could be achieved "at once" and, by inference, with the knowledge that we already possess concerning the causation and elimination of transmissible maladies and the possibilities of preventive medicine. We need not wait indefinitely for further necessary contributions at the hands of those searching for the secrets of unsolved problems of disease; we have abundant equipment for action and results even now.

In raising the question as to why we are not already enjoying a consummation so devoutly to be wished for, I would not have you feel that I desire to minimize or to mar in any way the glory of the wonderful and all-important achievements in the conservation of human life, health and happiness that have already been secured by zealous workers, almost all of whom, I am proud to say, have been members of our beloved profession. Their fame is secure, but their work has only blazed the way and opened up vistas of the far greater possibilities of the future.

Nevertheless, the query is insistent why, where so much is at stake, the potentiality of the future is not already the accomplishment of the present. Considering what physicians actually do and have always been striving to do along these lines, it cannot be fairly said that the incompleteness of the present status is due to lack of either faith or effort on their part. Whether we like it or not, we must realize that the time has come when it is absolutely necessary that others—yes, many others of many varied pursuits and callings—should take up a share of this portion of the "white man's burden" in which the physician has been the pioneer. A striking analogy in the field of human uplift which exists at the present moment will serve to validate this latter assertion.

From time immemorial the clergy of practically all religious creeds have been the leaders in and have done the chief work in all phases of religious activity. The laity have been content to give moral and financial support, more or less hearty according to conditions and circumstances. But suddenly within the last few years there has been developed a tremendous laymen's missionary movement in which are enlisted men of all creeds and denominations, which has already shown great power and influence and which promises to accomplish more in a few decades than has been achieved in many centuries of the past. I could speak of other manifest signs of social awakening, of the realization on the part of the good citizen that he is his brother's keeper, and that active altruism must supplant selfish inactivity and indifference. Therefore, the time is ripe to call the laity to our aid, and already the first steps have been taken toward this end.

Thus, we find not only that do current newspapers and magazines contain with increasing frequency popular articles on subjects pertaining to preventive medicine, but that the American Medical Association has organized a Board of Public Instruction on Medical Subjects—whose work will be largely along the lines that I am indicating—and especially that at our meeting last year in Atlantic City this Section became sponsor for and the Association authorized the Public Health Education Committee, of whose purposes and work I shall have more to say later.

It is entirely unnecessary and it would be a waste of your time and an abuse of your patience even to mention the many subdivisions and phases of preventive medicine which any plan of general popular education for this purpose involves. My desire is rather to discuss some of the means whereby positive results may be most readily secured under present conditions and by which the most profitable expenditure of effort and energy may be made. Nor am I unmindful that some, if not all, of the suggestions may seem trite and commonplace to you who have been for years engaged in the pioneer work of this great propaganda. In my own teaching I constantly find the tendency to overlook or to minimize important features because, through frequent repetition, I have become imbued with the feeling that they must be known and recognized by every one. Nevertheless, we have evidence on every hand that many of the simplest sanitary truths and principles are entirely unknown or unheeded by many of even the intelligent members of our communities. And as some of the most important and most insistent features of our work has to do with those persons who cannot be thus classified, but whose ignorance prevents even the appreciation of the importance of hygiene and prophylaxis, I trust that

* The Oration on State Medicine in the Section on Preventive Medicine and Public Health of the American Medical Association, at the Sixty-first Annual Session, held at St. Louis, June, 1910.

1. Abstract of the Report on National Vitality of the Committee of One Hundred on National Health.

any review of familiar methods may not seem inappropriate and out of place.

Moreover, I shall scarcely attempt to present the several methods in a logical sequence or with any idea of their respective correlation. In fact, I doubt whether one could place them in scientific and orderly array at this time, especially when different localities and conditions demand varying means and application of means. But, as our hope is in the future, and as the children of this generation are to be the citizens of the next generation, I may as well begin with them and with the chief medium of their education, the schools. Schools imply teachers, and so the question arises: Whence come the teachers and what preparation have they had for giving instruction, both subjective and objective, both didactic and practical, on the fundamentals of health and life? Surely no one at this day will cavil at the proposition that physical development is as important as mental, and that every child should be informed as to the functions and needs of the body, as well as of the mind. But we have scarcely appreciated the equally important fact that the future citizen should be taught his duty in conserving the welfare of others and the altruistic aims of modern hygiene and sanitation. Can his teachers give him this training? I think that any extended investigation will convince you that the number of those capable of doing this in a thoroughly satisfactory manner is very small in comparison with the total number. No criticism of the average teacher is altogether fair under present conditions, however, as the blame for his or her inefficiency lies higher up and chiefly with us, ourselves. Really, we are more concerned with the future, provided we date from now.

According to the United States Commissioner of Education, there were in the public and private normal schools of the country for the year ending June, 1909, 82,288 students enrolled in the regular training courses for teachers, and 14,155 graduates therefrom. Added to these, there were in public and private universities, colleges and high schools enough others pursuing teachers' training courses to bring the total up to 103,824; and if the latter institutions "had furnished from their normal students the same proportion of graduates" as did the normal schools, the additional "number would have been 3,704, thus increasing the number of trained teachers to be added to the teaching force of the country in 1909 to approximately 17,859." Provided that each one of these teachers shall have been equipped and qualified to teach what every boy and girl has a right to and should know about personal hygiene, public health and preventive medicine, there is here a mighty power for good whose benefits to the next generation and to the country's welfare no man can calculate. And yet this is but one year's output.

Few here would argue, I take it that any pupil of high-school grade should not be thoroughly instructed in the fundamentals of sanitation and public health, or that our higher institutions of learning should not help to make better citizens along these lines. What a potentiality for good, then, was there enfolded in the 1,034,827 students of high-school grade that the Commissioner of Education tells us were enrolled for the year ending last June, or in the 331,418 students in higher education, even though the proportion of the former was only 11.72, and of the latter, 3.75 to each one thousand inhabitants!

In addition, more than sixteen million other children were enrolled in the public schools of the country in 1909, and it is also estimated that the total number of children from 5 to 18 years of age was 24,613,783, or almost half a million more than the estimated number of males 21 years of age and over. Is it not worth while to attempt to awaken the interest of our superintendents of public instruction and other educational authorities?

Another way of reaching many of these children and some of the adults is through the public playgrounds and recreation centers which are being established in many of our cities. The number of these is already greater than most persons realize. Thus, in 1909, there were 1,535 of them in 267 of the 336 municipalities in which supervised playgrounds are maintained, and in 259 of these cities there were 3,756 persons employed as supervisors and play-leaders. The latter large and increasing body of intelligent men and women, many of whom have had expert training in physical culture, can exert a tremendous influence, not only indirectly by subjectively developing in their charges an active appreciation and desire for health and sound bodies, but directly by inculcating whenever opportunity offers many of the fundamental principles of personal hygiene and public health. That this may be done most happily in an environment of baths, gymnasium apparatus, open-air sports and games for children of all ages must be obvious to all.

Leaving the children for a time, and considering the public at large, we find it no small problem to determine how we may reach and benefit the largest number most efficiently. Those who have undertaken the work have found that no one plan or method will suffice, and that the best intentions and service is oftentimes illy repaid or appreciated. In planning work of this kind, however, it may be said that the methods adopted should be devised so as to attract and hold the attention of the individuals concerned and to convince them that they are personally and especially interested. We cannot afford to ignore the fundamental principles of psychology and pedagogy in this domain.

Heretofore the brunt of what work has been done has fallen on our national, state and municipal health officers and their assistants, and the country will ever owe an irredeemable debt to these men who have done and are doing such valiant service. They realize, however, that the task has grown too large for them, backed, though they are with official power and funds, and they welcome the aid of every progressive physician and earnest citizen who will help to further the physical welfare of the people committed to their care.

Among the efficient means which these health officers have heretofore employed to extend sanitary knowledge are, on the one hand, the weekly or monthly bulletins and the annual reports on the state of health of the communities under their respective jurisdictions, and on the other, the special tracts or pamphlets carrying precise information relating to the precautions to be observed when certain specific diseases occur in either sporadic or epidemic form. The latter have the great advantage that they reach the individual when he is in a highly receptive mood and most likely to heed and to be impressed by the information they contain. As for the bulletins and reports, there is the twofold danger that their distribution may be too much limited, whereby they may fail to reach those whom they might benefit the most, and also that they may fail to interest the average individual by being made simply a compilation of dry vital statistics. There are, however, many of these publications to which this latter criticism does not apply, a notable example being Chicago's weekly

bulletin which bears the title "Chicago School of Sanitary Instruction," and which has at its head the statement that it is "sent free to those of our citizens who should be benefited by it." The annual health reports of our states and larger cities also contain much valuable and interesting information, and are worthy of a wider distribution and more extensive study than, I fear, most of them receive.

A number of progressive health officials are now using the newspapers of their territory more extensively than ever before as a means of reaching the public and keeping it in touch with the progress of their work, their needs and their purposes and aims. The Commissioner of Health of my own state, Dr. Dixon, systematically takes his constituency into his confidence by utilizing the facilities of the newspapers of the state to the extent of 600 or more, and the corresponding official of Philadelphia, Dr. Neff, has likewise greatly strengthened his administration in the public estimation by a free and frequent use of the city papers.

Other agents under the direction of directors, commissioners of boards of health are the medical and other inspectors, including school and visiting nurses, all of whom are enabled to give direct, positive and timely instruction and advice to those who most need it and who are often least likely to get it from other sources. School medical inspectors also have demonstrated their value and the enormous advantage they have in detecting abnormalities and defects in their incipiency. Dr. Osler is reported to have calculated that there was in New York City "on account of the lack of medical supervision of educational work a yearly financial loss of $1,666,666," and also to have said in effect that "he considered it of greater importance to the nation that the question of sound teeth be intelligently considered than that the consumption of alcohol be restricted, important as the latter problem is."[2]

Reference to the newspapers calls attention to the fact that in the public press we have one of the most powerful and practicable factors for disseminating information and developing education along our special lines, and that as yet we have barely tested its possibilities. It is only when we realize that we have in this country almost 2,500 daily and over 16,000 weekly newspapers, not to speak of the great number of popular magazines and periodical publications of other kinds, that we can appreciate the opportunity they give us to reach the mass of the population. Moreover, their editors and publishers, almost without exception, are ready and even eager to give us abundant space for anything authoritative that has to do with the improvement of public health. They have realized even more quickly than we have the popular demand for such information. In evidence of this, note the recent increase in the number of magazine articles on health topics.

It certainly should not be difficult to plan measures by which we could make use of this great medium to the fullest extent. Suppose, for instance, a health column supplied by some competent authority were printed in every weekly newspaper in a given state throughout the year—something by no means difficult to secure. Comparatively few families subscribe for and few individuals read more than one of these weekly papers. Hence the same "copy" could be used for many, either simultaneously or by judicious distribution, and the same editorial effort applied to an extended territory. If, too, the state department of health should undertake such work, as is, in fact, being done in my own state, great economy of labor and expense would be secured, the matter for publication would go out with the stamp of authority, and the health department would be brought into that close touch with the people that is so essential for its success.

A caution is to be observed, however, whether state officials or others take up this line of work. Such published matter should be authoritative, educational and not above the capacity of understanding of the average reader. If the series could in part develop systematic instruction along certain lines, so much the better, but care should always be had that misleading or exaggerated statements should not be made, and that statistical or other information should be well grounded in fact.

Magazine articles, such as those by Dr. Woods Hutchinson in recent numbers of the *Saturday Evening Post*, and others with which you are doubtless familiar, are also of great value in fixing and molding opinion, and writers with special talent in this line should be encouraged to contribute their aid to the work. Likewise, publishers of religious, trade, agricultural and other specialized periodicals should also be urged to make the relationships of public health to their respective fields of work frequent and special features of their publications. As I have indicated, the opportunities for disseminating information in this way are almost innumerable.

Life-insurance companies and fraternal organizations that maintain insurance departments are in an especially favorable position to greatly benefit both their own and public interests, and some of them are already seizing the opportunity by official communications to their medical examiners and policy holders. In a circular letter to its medical examiners, dated April 15, 1910, the chief medical director of the Provident Savings Life Assurance Society says:

> The Policy Holders' Health Bureau, established by this society in August, 1909, has passed beyond the preliminary experimental stage. Tangible and practical results are already in evidence, which warrant the prediction of a permanent and growing field of usefulness for the activities grouped under the organization of such a bureau. . . . We have referred to our bureau work as "semi-public," for the reason that as the number of policy-holders benefited by our system increases, the general public will also become informed as to the value of periodical medical examinations, and there will be a growing tendency to employ physicians as inspectors and regulators of human machinery, rather than as necromancers who are expected to work miracles in the cure of established and progressive disease.

Dr. Dwight, medical director of the New England Medical Life-Insurance Company, says:

> For more than sixty years the life-insurance companies of this country have been storing up ammunition and developing an organization which, if properly used, would be almost sufficient in itself to turn the tide of battle for public health in favor of the forces of scientific effort.

Dr. Hiram J. Messenger, actuary of the Travellers' Insurance Company, prepared a table for Professor Fisher's Report on National Vitality, to show that the life-insurance companies could probably make money now by taking a hand in the public health movement, and says:

> This table shows that if the companies were to expend $200,000 a year for this purpose and as a result should decrease their losses by the almost insignificant amount of twelve one-hundredths of 1 per cent., they would save enough to cover the expense. If such a plan as this were placed on a purely scientific basis and carried out by good business methods and all the companies pulled together for the common good, I should expect a decrease in death claims of more than

2. Fisher: Report on National Vitality, p. 73.

1 per cent. And a decrease in death claims of 1 per cent. would mean that the companies would save more than eight times as much as they expended or would make a net saving of more than seven times the expense—which would be about a million and a half dollars a year.

I need not dwell on the importance of public lectures on health topics, but it must be noted that these will not realize their full value for good unless attention be given not only to the selection of speakers and their choice of subjects, but also to proper advertising and the securing of large and interested audiences. In many instances, their values would be enhanced if they were given in connection with public exhibits, such as those on tuberculosis recently held in many of our cities; and in any community there would doubtless be a decided gain if most or all of such lectures in a season were systematized and arranged in a logical course under the superintendence of some organized body, such as a county medical society, women's club, college settlement or the like. It is also advisable that such organizations in the large cities should provide lectures in their respective tongues for the masses of foreign population that we find in certain districts. It may even be advantageous to increase the attraction by illustrating the talks with lantern-slides, or by providing some additional musical entertainment. But it is on these addresses and the visits of medical inspectors, district nurses and other sanitary missionaries that we must chiefly rely for the principal education of these alien masses of our population.

In fact, I would recommend that in each of our towns and cities of moderate size, and in localized districts of the larger cities, there should be organized public welfare clubs, whose chief business should be the carrying on of this propaganda of public health work and sanitary instruction. Such clubs might be independently developed, or they might be made up of representatives from associations and organizations already in the locality, such as the beneficial and fraternal societies, women's or mothers' club, library association, Christian Endeavor and church clubs, etc. They should naturally include the physicians and clergy of the community, and every public-spirited man and woman who has an active interest in neighborhood improvement and the welfare of humanity at large.

Such clubs could thus not only arrange for a systematic course of public lectures and exhibits, but could institute and develop public health measures and improvements of all kinds. You will at once realize the many lines of activity which they might follow. They could call on the central health department of the state for statistics, charts and other material for exhibits on tuberculosis, typhoid fever, etc., and, in passing, I would remark that it would be well for the state health departments to have such exhibits prepared for the special use of just such clubs and organizations, which could use them in turn and on proper request and notification. The winter course of lectures would include discussions of local sanitary conditions, the dangers of patent medicines, the prophylaxis of social disease, the theory and use of antitoxins and vaccines, as well as the ordinary questions of hygiene, and would soon be appreciated by the public as of great educational value.

Organizations such as these could also make use of a means of arresting and fixing public attention that has as yet been too rarely employed—the public poster. These posters, which have already been used in some of the large cities, as in Philadelphia and Chicago, are probably more practicable in smaller communities, because the smaller number needed greatly reduces the expense. Notwithstanding the multiplicity of newspapers and magazines and the opportunities they offer for exploiting our work, we must realize that not only do many of their users peruse them but carelessly and hurriedly, but also that many of the general public do not read them at all. Hence we should provide some other means by which "he who runs may read" and whereby he may be induced to take heed of that which is for his own or his neighbor's welfare. This the poster does, and it may be used in all sorts of places, such as billboards, shop-windows, street-cars, etc., where it will catch the eye and fix attention.

Care should be taken not to attempt too much on a single poster, since an excess of reading-matter in small type may lead to a failure to attract due notice. A few pithy, epigrammatic sentences, or often a single one, with at times a touch of local or timely wit, or, perhaps, a sketch or cartoon, will do more to fix the purport of the poster in the minds of those who take it in at a glance in passing than will a lengthy exposition that requires a halt of five minutes or so for its reading. We can afford to take a lesson here from successful advertising agents whose business it is to know human psychology to the end that they may drive impressions home within the space of the fleeting moment.

I feel confident that the judicious use of such posters in a community of moderate size would do much to secure public attention and excite comment, and that the public welfare clubs, health officers or others may well employ them to do what the newspaper and magazine articles cannot do. The poster will also be especially useful when printed in other tongues than our own and properly distributed in the foreign districts of our larger cities.

A failure to mention the potential assistance which we may have from the clergy and our churches would be to lose sight of a most important and powerful component of our body politic. The signs of the times show most positively that henceforth the minister to the soul and the physician to the mind and body must be more closely linked in their labors than ever before, that they must work together and not pull apart or against one another, and especially that this great field of preventive medicine is the domain of both. Ministers of all denominations should be encouraged properly to encourage and to instruct their congregation in the acquisition of the fundamental principles of bodily hygiene and altruistic sanitation and in the appreciation of these as important and necessary to the securing of spiritual health. Churches and parish-houses which now are idle on too many week-days should be opened and used for public lectures and meetings. What places could be more appropriate for joint talks from pastors and physicians on questions that pertain to the proper instruction of youth, the abuse of alcohol, social purity, etc.? Where better could the two professions join to combat false gods and dangerous doctrines? The physician can assist the preacher by giving him sound information and trustworthy data for his sermons, and by encouraging him in dealing with such topics, and the preacher can support and help the physician in his campaign against all that makes for disease and pain and suffering in their common neighborhood. That the congregation can do much in doing their share of the work, if they are only shown the way, is so obvious that I need but mention it.

Within the past few years the Department of Health of Pennsylvania has established 114 tuberculosis dispensaries, which are doing much good in an educational

as well as philanthropic way. The professional nurse, who is attached to each of these dispensaries is especially valuable in this direction and "her ministrations amount to a liberal education in the treatment of tuberculosis." She not only makes a first-hand investigation of each patient's case, securing data as to his family history, occupation, financial resources, etc.; but she visits him at his home and there instructs him and the other inmates as to his proper care and handling, how the others are to escape infection, and especially devotes particular attention to diet, telling the housewife what to cook and how to cook it. Thus far over 130,000 of such visits have already been made, each one affording an opportunity for instruction in sanitary details with a direct and immediate application thereof. The value of such educational work needs no argument for its appreciation.

I might continue to consider with you other ways and means for carrying on this missionary work of ours, but your patience may be approaching the limits of tolerance. Therefore, as the last but by no means the least of these beneficent and efficient agencies to which your attention is directed, I trust you will give full support and encouragement to the work and efforts of the Public Health Education Committee that had its inception in this Section a year ago.

No one at this time can afford to deny that one of the most powerful factors in general public uplift and especially in the extension of the very work in which we are interested, is the collective influence of the good and intelligent women of this country, as manifested not only in their special clubs, mothers' meetings, etc., but also in their individual homes and neighborhoods. It is this influence which the Public Health Education Committee desires to weld and unify into a mighty agent for this special work, and both this attempt and the primary endeavor to enlist in the campaign the women members of the American Medical Association is, I believe, worthy of our hearty commendation and support. Here certainly is a wide field for the energies of the woman physician and none of us need feel jealous or envious of her entry on it. She can do more in certain directions than can the man; she has more leisure and adaptability for certain phases of it, and she can bring in, as the man cannot do, the joint influence and power of other women's organizations that will all work for better and healthier homes, communities and the common country. Let us congratulate the committee, therefore, on what it has already accomplished and help it to do still more in the future.

I shall not take time to do more than to mention the work of our Board of Public Instruction in Medical Subjects, for I assume that you are all so familiar with it that nothing that I could say would add to your sense of its importance, especially in this field of ours.

With this review of the means at our command, and from which many details have necessarily been omitted, I trust that I have made you feel that we are well armed for the educational campaign which must be conducted before we can hope to secure the results in the conservation of life, health and human vitality that we know it is in our power to have. Dr. Rosenau has recently said:

> The public health militia that I have in mind calls for the enrollment of all good citizens. Preventive medicine is the watchword of the hour, and enlistment in the cause can come only through education. There are two important factors in efficient public health work. One is the gaining of new knowledge through scientific research; the other is the diffusion of this knowledge through education. The two go hand in hand. Not only the medical profession, but the people must be the reserve militia in any effective warfare against disease.

Professor Fisher likewise says in the conclusion of the summary of his report from which I have already quoted:

> Money estimates of waste of life are necessarily imperfect and sometimes misleading. The real wastes can only be expressed in terms of human misery. Poverty and disease are twin evils and each plays into the hands of the other. From each springs vice and crime. Again, whatever diminishes poverty tends to improve health, and *vice versa*. . . .
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> The conservation of our natural resources—land, raw materials, forests, and water—will provide the food, clothing, shelter and other means of maintaining healthy life, while the conservation of health likewise tends in many ways to conserve and increase wealth. The more vigorous and long-lived the race, the better utilization it will make of its natural resources. This will be true for two reasons in particular: First, the greater inventiveness or resourcefulness of vigorous minds in vigorous bodies. Civilization consists chiefly in invention and the most progressive nations are those whose rate of invention is most rapid. Second, the greater foresight and solicitude for the future. As it is usually the normal healthy man who provides life-insurance for his family, so it will be the normal healthy nation which will take due care of its resources for the benefit of generations yet unborn. . . .
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> Federal, state, and municipal boards of health should be better appreciated and supported. Their powers of investigation, administration and disseminating information should be enlarged. School hygiene should be practiced, and personal hygiene more emphasized. The multiplication of degenerates should be made impossible.

If one state, through the administration of one man and his staff and supported by the hearty co-operation of its municipal and county health officers, can within four years not only organize and establish a department of health almost *de novo*, but also show a positive saving to the commonwealth of $23,000,000 of human life value with an expenditure of $3,000,000; if it can, as Pennsylvania has done, within that time cut the typhoid mortality to less than half that it was before, bring down the tuberculosis death-rate from 134 to 120, and show a net saving of almost 14,000 lives, is there not every encouragement to continue with renewed energy whatever efforts we have been making in the past? Even though we are tempted at times to feel that much of the seed falls among thorns or on stony ground, we have no reason or right to conclude that the sowing is not well worth while; that the labor will not bring a bountiful harvest. Fortunate is he whose field of endeavor shows the promise of a more abundant reaping or fuller granaries in the end.

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THE INSTITUTIONAL TREATMENT OF NERVOUS AND MENTAL DISEASES*

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It is my pleasant duty in opening the proceedings of this Section to thank you for the honor you have bestowed on me in making me the Chairman of the Section for the year. I may further say that the honor is a real and unexpected one; for the first intimation which I had that I was to be chairman for the year was the report of the nominating committee to the Section at the meeting of the Association last year at Atlantic City. And this leads me to believe that, whatever may

* Chairman's address before the Section on Nervous and Mental Diseases of the American Medical Association, at the Sixty-first Annual Session, St. Louis, June 7-10, 1910.

be said of the past, or of any other Section of this Association, in the Section on Nervous and Mental Diseases, medical politics plays no part whatever.

I believe that it should be the aim of this Section to discuss all the varied phases of nervous and mental diseases, and that its officers should endeavor to assemble together the best available men in the country on its program. And I further believe that it should be the especial aim of this Section to present the subjects of neurology and psychiatry in such clear, simple and attractive manner that its proceedings may serve to interest and instruct not only neurologists and alienists, but also general practitioners and internists and a certain number of those whose field of activity lies in work in other specialties. It may be truthfully said that the problems which engage the interest of the members of this Section also possess in themselves more or less interest for all members of the profession. Neurology and psychiatry in their several aspects and in their manifold interests call on those who pursue them as specialties to take more or less account of every other department in the broad domain of medicine and, indeed, much outside it, for example, law, social science and penology.

It is with this understanding of the subject that I have endeavored to cooperate with our secretary (and to work with him has been a genuine pleasure) in making out the program for this meeting.

The criticism is often made of programs of associations of neurologists and alienists that they present little or nothing on the subject of treatment; and for one, I have the feeling that this reproach is not wholly undeserved. Hence it has been our aim in making up the program for the Section this year to secure an unusual number of good and practical papers dealing with the treatment of nervous and mental diseases; and I believe that if you will look over the program in your hands you will agree with me that we have attained a very fair measure of success.

I wish to address the Section briefly on a subject which I believe to be one of vast and far-reaching importance, even though I shall be able to speak only in general terms and must treat it most inadequately and leave much that I should say unsaid. I refer to the institutional treatment of nervous and mental diseases.

This subject becomes one of vast importance when we consider the large number of patients for the adequate or proper care of whom institutional treatment is required. In nearly all cases of insanity institutional treatment is demanded and received; in nearly all the severer cases of inebriety institutional treatment is demanded, but in few is it received; and very many of the cases of organic and functional nervous diseases demand and some receive institutional care.

As years go by and hospitals for the insane improve their equipment, and as the public becomes better educated as to the value of institutional treatment for the insane and less and less suspicious of these institutions, the percentage of insane and feeble-minded outside of hospitals grows less and less, and these institutions everywhere throughout the broad land are becoming more crowded. Nor does the provision for additional accommodations in any state in the Union keep pace with the growing demands for such accommodations. Despite many drawbacks and obstacles, and despite the great work of improvement which yet remains to be accomplished, these institutions have made fair progress in their methods and equipment for the care and treatment of the insane and feeble-minded.

In this connection I desire to direct attention to the subject of the treatment of insane in institutions other than regular hospitals or asylums for the insane. So far as I know, there are only two general hospitals in the United States—St. Francis Hospital, Pittsburg, and Albany Hospital, Albany, N. Y.—which are equipped to receive insane patients. There are several large hospitals for the insane which are departments of general hospitals, but which possess separate buildings and separate managements and must be regarded as practically separate institutions.

I wish to say a word here regarding St. Francis Hospital in Pittsburg and its work to illustrate some of the points I wish to make. This is a large general hospital and has connected with it a psychopathic ward. In this ward or department there are about 100 patients, including a great many acute cases; and it has been the aim to have only acute cases in this department. A resident physician and intern devote all their time to this department, which is under the medical direction of three visiting physicians. The members of the medical and surgical staff are frequently conferred with regarding these patients. While the psychopathic department of St. Francis Hospital is not entirely ideal and much remains to be done to make it so, yet it stands for a most valuable principle, namely, the treatment of insane in a general hospital. This means much, very much. Our experience at St. Francis is that patients suffering from acute psychoses are admitted early, and that their friends do not feel that the same stigmata is placed on them going to and coming from this hospital as in the case of the regular hospital for insane. It is well known that certain psychoses can be and have been treated in general hospitals, but the difficulty is that if such patients become noisy or troublesome the management generally demands their removal. I am strong in the conviction that in every large city there should be at least one general hospital ready to receive cases of insanity and equipped to treat these patients. A large general hospital can easily have a properly equipped wing or even detached section to hold 25 or 50 patients, and thus it can accomplish a great purpose and fill a great need in any large community. The noise and disturbance of such patients can be kept from the general hospital if the wing or separate building is properly planned and built.

Psychiatry should be regarded as a department of internal medicine, and I trust that the time will come when the psychoses will be discussed in general textbooks in the practice of medicine. And the day is coming also, I trust, when patients with acute psychoses will receive treatment in general hospitals and not have to go to hospitals for the insane unless the disease is unduly prolonged or appears to be incurable. When the treatment of insanity is undertaken by general hospitals, as I have indicated, I believe that an entire change will come over the profession and the public regarding their attitude toward the insane. The profession will realize in a practical way that what is called insanity is an expression of sickness; and the laity will learn the same lesson. Another result would be that the skill of the various specialties would be brought to the insane; and these patients would be a constant source of education for all physicians connected with hospitals maintaining such psychopathic departments. And then psychoses would be described in the textbooks on the practice of medicine and the general profession would learn something about them.

It appears to me that, viewed from almost any aspect, the treatment of insanity in general hospitals is greatly to be desired and promoted. Nor do I believe that separate psychopathic hospitals, isolated and apart from the general hospital, possess the advantage which a psychopathic division of a general hospital possesses; for sooner or later they are sure to be regarded by the general public as "insane asylums."

There is a large and sadly growing class of individuals for whom large provision should be made for institutional treatment and for whom such provision is now sadly lacking if we are to hope to give anything like adequate treatment; I refer to the inebriate, addicted to the excessive and uncontrolled or uncontrollable use of alcoholic drinks or morphin, cocain or other drugs. The present inadequate treatment of inebriety is to-day, in my opinion, a standing reproach to society and to the medical profession. The inebriate who seeks or whose family seeks for him institutional treatment meets at all hands with invitations from quackish institutions whose treatment in the main is simple humbug. And yet I think that it will be generally admitted that for a large number of inebriates there can be no adequate treatment, indeed none worth the name, other than that afforded by a well-equipped institution. And such institutions are few in number; so few, indeed, that many an honest practitioner knows not where to find even one for his inebriate patient.

While there is and will be an increasing number of private institutions for inebriates, these are and must be wholly inadequate to meet the needs of the situation. As the result of much thought and investigation, I have reached the conclusion that the several states must provide separate institutions for inebriates, and such institutions should be governed by clear, adequate and comprehensive laws.

Massachusetts and Iowa are, so far as I know, the only states which at present maintain state hospitals for inebriates; and both have adequate laws governing them. We are fortunate in having with us at this meeting Dr. Neff, the superintendent of the Massachusetts State Hospital for Inebriates, who is to tell us of the workings of that institution. Minnesota is about to provide a state institution for inebriates, and the subject has been urged before the New York and New Jersey legislatures, but as yet without success.

In Pennsylvania, the state medical society has for several years been trying to persuade the legislature to build a state hospital for inebriates. A bill providing an appropriation for the creation of such an institution was passed by the last assembly; but it was vetoed by the governor because of his belief that the financial situation would not warrant this new expenditure. Pennsylvania already has a law which provides that an inebriate may be committed by a judge, after a hearing, to a "proper hospital or asylum" for a period not to exceed one year. Under this law, a number of inebriates have been committed to various hospitals for the insane throughout the state. Superintendents of these institutions are unanimous in saying that they do not desire these patients, as they do not properly belong there, that they are hard to get on with and upset the discipline of the institution. On the other hand, the inebriate himself strongly resents being committed to an insane asylum; and in consequence he goes there, when compelled to, in a frame of mind little calculated to effect a restoration to health having in it the elements of stability.

Our argument to the Pennsylvania legislature has been brief and to the effect that the adequate treatment of inebriety requires a separate and properly equipped institution and a proper law governing it and the inebriate. It was urged that, since the state has taken the first step in providing a law governing inebriates, it should logically take the second step and provide the institution which the law contemplates. We hope next winter to succeed in our endeavors with the legislature.

Thus it will be seen that already a start has been made in the matter of provision of state institutions for inebriates and I trust that in the near future we shall see the establishment of many such institutions, so that ultimately every state shall possess at least one.

And now, finally, I shall consider one other class of institutions, namely, sanitariums having for their object the care and treatment of persons suffering from organic and functional nervous disease. These institutions are of all sorts, kinds and descriptions and they are found in all parts of the country. They are large and small; meagerly equipped and elaborately equipped; they are operated by religious associations and by commercial companies and by individuals; they are ethical and semi-ethical and quackish in character. And after a large experience with them, covering something like a score of years, I am bound to say that, generally speaking, sanitarium treatment in this country leaves much, very much, to be desired. My objections to sanitariums are various. This one is entirely too large and has too many patients and too large and complicated machinery and possesses the "sanitarium atmosphere" which is oppressive and depressive. Another is small and badly equipped and affords too little diversion; treatment is slovenly and routine. It appears to me that it is perfectly proper and desirable that sanitariums should afford an opportunity for religious devotions, but it also seems highly objectionable to me that a religious atmosphere should be forced or obtruded on patients. Again, we find that some articles of diet are recommended and others prohibited which are in ordinary use, and thus patients run a great risk of becoming diet cranks. We see sometimes an elaborately equipped sanitarium with all sorts of apparatus, all of which looks very impressive to the casual visitor, but which is too often used improperly. It is used improperly, I believe, when used unnecessarily or too frequently, or when the ends to be gained are not properly considered. I have known more than one self-centered, introspective patient to be made worse by the constant round of ill-planned or unplanned examinations and "treatments" in sanitariums. Again, there may be an excellent medical man at the head of a sanitarium; but the physician finds that when this patient goes to the institution he did not see this excellent chief, but an underpaid and inadequate subordinate. Generally speaking, sanitariums do not sufficiently provide for outdoor games, exercises, walks and varied amusements; and the treatment is slovenly and too mechanical and routine.

Instead of going further into the matter of my objections to sanitariums as I have found them, I shall endeavor to make a little sketch of the ideal sanitarium as I see it in my mind's eye, and as one often finds it abroad; and as one very, very seldom sees it in this country.

It is not very large; it accommodates from 50 to 100 patients. It is situated in the country about three-quarters of a mile from the railroad and is reached by a

charming drive; it is in the midst of a very charming landscape in which are found no objectionable features. A large wood in the neighborhood belongs to the sanitarium and has many paths and walks running through it, and these are marked off so that patients can estimate the distance they have walked. Scattered along these walks at intervals are various benches and a few pavilions.

A stable is attached to the sanitarium; drives in the neighborhood are attractive and varied. In a separate building, but very close to the sanitarium and connected with it by a passage way, is an amusement hall containing auditorium for private theatricals and concerts, etc., and in the basement there are billiard tables and a bowling alley and a swimming pool, all of which are used every day. Closely adjoining the amusement hall there is a small but well-equipped bathing establishment with Turkish baths and other provisions for hydrotherapy. Those taking Turkish baths have easy access to the swimming pool.

Now as to the sanitarium itself. It has been especially built and equipped for sanitarium purposes. The building is modest and attractive and entirely free from any freakish design. It has a home-like appearance. The furnishings throughout are simple and modest and thoroughly good, and the whole place throughout is absolutely clean. Nothing is obtrusive. The physician in charge is a man well known for his excellent general character, his ethical standing and his sound conservatism, and the fact that he keeps in touch and abreast with the medical world of the day. In short, he is a man of experience and soundness of character and he possesses tact in a high degree so that he gets on well with the various patients. His position is secure and his time is wholly devoted to his medical duties. He never hesitates to recommend the dismissal of a patient when such dismissal seems to be for the best interests of the patient or the institution. When patients become insane or unmanageable he has backbone enough to demand their dismissal and that they be placed in a proper institution.

The physician in chief is assisted by one or two younger medical men who breathe the atmosphere of their chief and work in complete harmony with him.

The various apparatuses for laboratory work and investigation and therapeutic purposes are at hand. These are used with caution and discretion and not in blind routine fashion and seldom needlessly. One of the main features of the sanitarium is the stress laid on individual treatment; and the doctor avoids, so far as possible, cut-and-dried routine in all his examinations and treatments. The rules governing the sanitarium are simple and clear. Nothing is obtrusive or "peculiar" in these rules regarding religion, diet or anything else. The dietary is simple, but sufficiently varied and thoroughly good. A short religious service is held every day, and any one can go to it; it is held in a place apart and is not in any way obtruded on those who do not wish to go and no one is ever pressed to go.

This is to my mind, as nearly as I can picture it for myself, the ideal sanitarium. The rates are a little high; but not higher than they ought to be considering what the patient gets. And whether or not you accept this ideal sanitarium, I believe that there is to-day a great need and growing demand for better sanitarium treatment in this country.

Westinghouse Building.

THE BASAL PRINCIPLES OF VACCINE THERAPY*

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Perhaps it is as well that the time allotted to me this afternoon only permits that I should, as it were, expose before you the broad ground plan of the territory of vaccine therapy. To criticise adequately but one of the many moot points would in itself occupy more than the given period.

Thus, therefore, in the first place as the main basal principle, it may be laid down that bacterial infection is primarily local and that even when the microbes spread from the primary focus, nay even when a bacteriemia is set up, there still persist tissues of election in which alone those bacteria find conditions for active growth. We may put this otherwise and say that *when bacteria gain entrance to the system they find but a limited opportunity for growth, nay indeed, they are destroyed in, if not by, the majority of the tissues.* Let me afford a familiar instance. Consider the course of a malignant streptococcus endocarditis. The very development of the endocardial lesions demonstrates that the streptococci have been circulating in the blood. Make blood cultures in such a case and without difficulty growths of the streptococci are obtainable. There is no question about the bacteriemia. But in such a case how rare it is to find a true abscess in the spleen, with active proliferation of streptococci in that organ! That the spleen becomes potentially infected is obvious enough; the conditions of the circulation here are just such as to filter and to arrest bacteria brought by the blood; and this organ is one of the seats of election for the arrest of loosened vegetations with their mass of included germs. Infarcts are common enough, but how infrequently do these pass on to true abscess formation! The only conclusion we can reach from this and other cases is that the splenic tissue indifferently destroys the various bacteria brought to the organ and possesses this power to an extraordinary degree. And what is true of the spleen is true also of some of the most widespread and some of the most important tissues of the body. How extraordinarily rare, for instance, it is to find abscesses developing in the skeletal muscles in a case of bacteriemia, or in the liver; or in the brain and cord. In all these tissues the capillary network is so fine that it is impossible that bacteria conveyed by the blood do not become arrested. And here in passing it must be laid down that in the normal animal it is not the circulating blood that itself destroys them. If, as Briscoe has shown, bacteria be introduced into the ventricle of an excised heart, clamped at the auriculo-ventricular groove in such a way as to preclude clotting of the contained blood, then the bacteria undergo little or no destruction on the part of the blood; they are not even taken up by the leucocytes, or more accurately the amount of phagocytosis is minimal. Nor again is it the specific cells of the various tissues to any marked extent that destroy the bacteria, with the exception of the hemolymph system, and I may add as a private heresy, probably the liver. As can be seen by inoculating bacteria into the circulation, killing within a quarter of an hour and making sections of the liver and other organs, those bacteria are actively taken up and destroyed by the endothelial cells lining the capillaries of these organs.

* The opening address of a Symposium on Vaccine Therapy, at the meeting of the Association of American Physicians, at Washington, May 4, 1910.

This fact, then, that bacterial infection is primarily local carries with it the corollary that *there is a natural or indifferent or non-specific immunity toward most bacteria exhibited in most of the tissues of the organism.* This, it is true, has its limits; it can be overcome by the exhibition (mostly under experimental conditions) of excessive numbers of bacteria, or of smaller numbers of bacteria of exalted virulence, its extent also varies as regards any particular species of bacteria in the different tissues. But I would lay stress on it inasmuch as it has been too much neglected. It fails to be demonstrated by experiments *in vitro* and so is apt to be overlooked, nevertheless, it is of high importance in this matter of vaccine therapy.

It is the existence of this natural and cellular immunity possessed, with the limitations above noted, by most of the tissues of the body in relationship to any specific bacterial form that renders vaccine therapy possible. Time forbids that I should discuss the most interesting and important matter of its relationship to acquired immunity.

The second great underlying principle to be recognized is that once bacteria have established themselves within a given tissue and have undergone proliferation there, that in itself is a sign that that particular tissue is not immune, that the subsequent arrest of their growth is not due to an exaltation of the bactericidal powers of the local tissues, but is due to aid contributed by the organism from without.

This is now-a-days so generally accepted that I need but indicate the main facts on which it is based, namely, the leucocytic invasion of the infected locality on the one hand and on the other the evidence afforded by Bier's treatment that the local proliferation of bacteria is arrested by favoring the inflow of exudate into the part. I would but call attention to Hektoen and Carlson's[1] recent brilliant and convincing demonstration that just as the natural or non-specific immunity is cellular and not humoral, so the antibacterial substances are not elaborated in the blood itself but in the tissues; that the circulating blood to which toxins have been added is rapidly deprived of those toxins and now transfused into another animal of the same species sets up no production of antibodies in that animal, whereas, the original recipient of the toxins, although deprived of its own blood and transfused with that of a third animal, proceeds to develop immune bodies.

These are the two basal principles, but in order to utilize them, and by introducing the specific bacteria, either living or dead, away from the primary focus of the bacterial growth to induce an increased antibacterial reaction on the part of the other tissues, there are certain precautions to be taken and certain subsidiary principles which must be heeded.

DOSAGE

First, as to dosage. The fact that definite fever and malaise may accompany the development of a (to others) insignificant streptococcus papule, say, on the nose—of a local inflammation not yet elevated to the dignity of a pustule, still less to that of a good honest boil—is a clear indication that a minute growth of a not specially virulent microbe may nevertheless induce pronounced general reaction; or otherwise, minute amounts of toxins are capable under natural conditions of setting up a profound systemic response. The fact noted by more than one observer,[2] that the application of a minute quantity of tuberculin to the skin slightly scarified is adequate to induce an inflammatory reaction around tubercles of the iris, shows similarly that incredibly minute amounts of toxin gaining entrance into the circulation can produce effects, even if in this case it be in a tissue that is sensitized.

It must ever be kept in mind that the first serious endeavor to employ vaccine therapy dates not from Wright but from Koch, or even more accurately from Pasteur, although the latter in his method of preventive treatment of rabies sought to intervene during the incubation period rather than during the frank exhibition of the infectious disease. Koch employed at first extracts of old bacterial cultures as a therapeutic agent, so old that they contained the diffused products of dead bacilli; later, what we now are accustomed to speak of as true vaccines, namely the killed bacilli. He did not at first recognize the significance of administering minimal doses. Wright's brilliant recognition of the possibility of guaging the extent of the reaction that follows hetero-inoculation has, I am inclined to think, been of service not so much as affording an accurate index, as in affording a means of demonstrating that the best results are apt to follow inoculation of doses of vaccine so small that they need induce no systemic reaction obvious during the next few hours by ordinary clinical means. We may thus take it as a generally accepted principle that minute rather than massive doses of vaccine are to be employed.

QUALITY OF VACCINE

As to the qualities of vaccine, what is true regarding preventive immunization would seem to apply to their therapeutic employment, namely, that a more effective reaction and surer results are obtained by the employment of minute non-lethal doses of the specific bacteria, than by the exhibition of dead cultures, and by the latter than by injecting the products of bacterial growth. But inasmuch as in a frank infection we cannot consider the resistance of the organism as normal, and as, in conformity with what has already been stated the virulence or non-virulence of a given microbe and given dose of the same is implicitly determined by its action on the normal organism, so in vaccine therapy it is, in general, unwise to employ inoculations of the living bacteria.*

So also, on general principles, it is obvious that when the various strains of not a few bacteria present wide variations in their capacity to induce the production of the various antibodies in the animals of the laboratory, more constant results are to be gained by the employment of what have been termed autogenous vaccines, namely, the dead cultures of the particular strain of pathogenic bacteria causing the infection in, and isolated from the patient rather than laboratory stock cultures. Such vaccines liberating a particular order of toxins and other bacterial products will more surely stimulate the production of just the particular order of antibodies necessary to counteract and destroy the infective micro-organisms.

CASES SUITABLE FOR TREATMENT

Now as to what may be laid down regarding the cases suitable for this means of treatment. We may broadly express the severity of any given case of infectious dis-

1. Jour. Infect. Dis., 1910, vii, 319.
2. Emery: Immunity and Specific Therapy, London, 1909, p. 381.

* The only exception that I can call to mind is the most cautious method introduced by Williams and Webb of treatment of tuberculosis by inoculating first either a single lung bacillus, or a very few, accurately counted, and at intervals steadily increasing the dose. This demands technical skill of the highest order.

ease as the difference between the resisting powers of the organism and the virulence of the microorganism. In other words, a like grade of disease is to be anticipated when the resisting powers are considerable and the virulence of the microbe also considerable, and when the bodily resistance is feeble but the virulence of the microbe also feeble. The most hopeless cases of disease belong therefore to the categories of intense virulence of the specific bacteria, and of extreme depression of the systemic resistance. In neither of these cases, whatever indicator we employ, whether we estimate the agglutinins, the bacteriolysins or the opsonins of the blood do we find other than a lowering of our index of systemic reaction. To inoculate vaccines in either order of cases is, not to set up a reaction on the part of tissues that are exhausted or incapable of stimulation, but is merely to increase the amount of toxic material circulating in the blood, and to accelerate the final event.

Thirdly, as to the great mass of intermediate forms, what is to guide us? With Wright we may distinguish between two main groups of cases, those in which the growth of the specific organism within the body is accompanied by a febrile state, and those in which a continued febrile state is wanting, although on occasions rise of temperature may show itself. The febrile state is the sign of diffusion from the foci of growth of the bacterial toxins, and possibly also of the products of local tissue disintegration, and of reaction to the same.

With Wright we accept that the non-febrile cases indicate a limited and confined local growth of the bacteria, under conditions which do not readily permit the infusion of lymph either for the continued nourishment of the bacteria or for the conveyance of antibodies, and which, coincidently, arrest the effusion of toxins and products setting up the general reaction. These conditions may be due to the tissue in which the growth occurs being by nature dense and poorly supplied with vessels, or may be of secondary development, the specific microbes being of a relatively low grade of virulence, so that the tissues immediately surrounding the foci of growth instead of being depressed become stimulated to proliferate, whereby there is developed a surrounding capsule, well seen, for example, in connection with many tuberculous foci.

As we see, I might almost say daily, in the post-mortem room, in connection with obsolescent tuberculous foci, this capsule formation may be so dense that in itself it must be regarded as a means of arrest of disease; or otherwise we may reasonably deduce that there can be a grade of self-limiting infection which, as there is no general reaction, is a potential rather than an actual infection, and in which vaccination is, it might seem, unnecessary. All the same, bacteria so fenced in are not absolutely innocuous. Clinical and post-mortem room experience demonstrate that they are apt to be latent and not destroyed. It would seem that hyperemia of the surrounding tissue and increased infusion of lymph may stimulate the bacteria to renewed growth and, whether by leucocytic agency or by necrosis and solution of the capsule, the bacteria may escape and set up active infection. The advantage of vaccination in this order of cases is that it replaces an unprepared by a prepared organism, and that through the sensitization of the immediately surrounding tissue it induces a very definite grade of hyperemia and leucocytic infiltration of that tissue, which, if the encapsulation is not too dense, must favor the entrance into the focus of antibacterial agencies; its disadvantages is that owing to the process of encapsulment the prepared lymph and leucocytes percolate with difficulty into the focus and thus are apt to be presented in quantities insufficient to bring about bacterial destruction. Vaccination alone in this stage does not surely bring about cure. What is necessary is the employment of auxiliary methods promoting the freer flushing of the focus or foci with antibacterial lymph as by Bier's methods for inducing hyperemia or Paterson's method of graduated exercise.

Why, it may be asked, do I categorically lay down here that the lymph is the important agent It may well be urged in objection, that, owing to the contradictory results obtained by different observers, one is not justified in concluding that the blood plasma and lymph, as contrasted with blood serum *in vitro*, possess either antibacterial or opsonizing properties, whereas, on the contrary Metchnikoff has proved to the hilt that the leucocytes of an immunized animal possess far more active phagocytic properties than those of the non-immunized. Quite so. But this is to me a very striking fact that neither Metchnikoff nor any of his school have succeeded in proving that the leucocytes of the immunized animal *per se*— the leucocytes separated from the plasma have greater phagocytic powers than those of the non-immune animal. And, this being so, we must hold as the simplest explanation that without the influence of the immune plasma or lymph the leucocytes are relatively inactive. Nor is it an adequate argument to urge that the leucocytes after centrifugalization and washing are depressed in their functions when placed in normal salt solution, if those same leucocytes transferred to serum will take up a score or more bacilli in a quarter of an hour. My colleague, Dr. Meakins, permits me to quote a yet more effective demonstration of this fact, repeatedly made by him, namely, the leucocytes of a highly immune animal placed in non-immune, normal serum do not take up any greater number of bacteria than do the leucocytes of a normal animal placed in the same serum.

We come now to the consideration of those cases in which the diffusion of bacterial products from the foci of growth has already caused a reaction on the part of the organism. Can we vaccinate with impunity in these cases—in the course of typhoid, pneumonia, and other acute diseases attended by manifest fever? Is there not the danger of adding to the amount of circulating toxins, and thereby exhausting the distant tissues—lymphoid, vascular endothelial tissue or what not—rather than the benefit of stimulating them to produce additional antibodies? Here I am inclined to lay down that the fatal event in the majority of severe infections is not brought about by exhaustion of the tissues in general, but by action of the circulating toxins on the medullary nerve centers, and that the sign of exhaustion of the tissues or paralysis of the same and inadequate reaction on their part is a lowering and not a rise of the body temperature. Thus in the first place it may be laid down that, to guard against excessive action on the nerve centers, *vaccination should never be directly into the blood stream but should be subcutaneous,* allowing a slow percolation of the added bacterial products into the lymph and blood; and, in the second place, that the febrile temperature as such is the evidence of capacity on the part of the tissue to react. This may, I think, safely be laid down that on the one hand a sinking temperature accompanied by increased weakness of pulse and respiration and advancing "toxic" state is a clear signal that the reactive powers of the patient are being over-

come and exhausted, so that vaccination can only be harmful, and on the other hand if the fever be somewhat high, provided that the pulse is steady with no signs of cardiac weakness, then vaccination may safely be undertaken. The good results obtainable in these cases can no longer be questioned, and what is interesting is that the system evidently benefits from the slight temporary added rise of temperature which shows itself during the six hours or so immediately following the vaccination.[3] Hyperpyrexia is a contraindication.

Time forbids me to do more than note the curious paradox that often such vaccination converts a disease like typhoid that ordinarily recovers by lysis into one recovering by crisis, and *vice versa* time and again causes a disease like pneumonia culminating in crisis into one healing by a relatively slow but favorable lysis. I can only emphasize that the physician must be prepared for these modifications of the normal course of disease.

THE OPSONIC INDEX

In conclusion there remains to be noted what Wright—and rightly—made the guiding principle in the development of his methods of vaccine therapy, namely, the establishment of an index whereby to determine the effects and course of the subsequent reaction. This was a notable advance. Nevertheless, serviceable as it has been in establishing vaccine therapy as a rational procedure and in determining both the intervals that should elapse between vaccinations and the augmentation of successive doses, it has to be admitted that Wright's index is faulty. The principle is all important, the means of application of the same imperfect. When two of the leading experts in London working with samples of the same blood taken before and after vaccination can report, the one that the index is raised, the other that it is lowered, by the process,[4] when, as pointed out by Meakins,[5] a given serum may afford a higher opsonic index when it is diluted than when it is undiluted, and when, as noted by more than one observer,[2] during a long and continued negative phase, which according to Wright is a danger signal, the patient may obviously be making rapid improvement, something must be wrong. The dilution method introduced by Neufeld and Hüne[6] and employed on this continent by Klien,[7] Meakins[5] and Hektoen[1] clearly reduces the error of the personal equation, and, giving a vastly greater scale of the same order as that employed for the estimation of agglutinins and lysins, permits a comparison to be made between the opsonins and other antibodies of the serum. But if Wright's method is laborious and time consuming, this is more so. The only practical course to recommend is that, in connection with each particular infection that it is sought to treat, the observer first studies thoroughly the variations in the opsonic and other indices in a series of cases, while carefully observing the effects of the vaccination treatment at the bedside, and then, armed with this foundation knowledge of the results of different strengths of doses in the different orders of cases, he educates himself to depend more and more on clinical symptoms in determining the strength and the frequency of his inoculations. Thus as shown by Latham[8] and by Hort,[4] it is possible in tuberculosis to read a temperature chart in terms of an immunity curve, the latter employing not the daily variation but joining the evening temperatures into a continuous curve.

In short vaccine therapy to be a success must be undertaken, not by the busy consultant, nor again by the confirmed habitué of the laboratory, but must be placed in the charge of one who, combining a thorough laboratory training with a certain amount of time not consecrated to other engagements, and a recognition that his future field lies in clinical medicine, accepts gladly the opportunity here afforded to apply his technical knowledge and to make intimate studies of individual cases of disease. Vaccine therapy lies in the hands of those younger well trained physicians whom happily the foremost schools of this continent are producing in increasing numbers.

Thus as a final principle it may be laid down—and I do this with full sense of the necessity and of the responsibility that attaches thereto—that vaccine therapy is not to be undertaken by the ordinary practitioner; there are too many dangers attaching thereto; and with this the corollary that, excellent as may be the stock vaccines prepared by certain firms, to advertise these lightheartedly and recommend them and their employment far and wide deserves the condemnation of this Association and of all interested in the well being of their fellow men.

3. A rise which, it is interesting to note, is wanting in the class of limited infections already discussed, and is suggestive of increased sensitiveness of the tissues already stimulated by the circulating toxins discharged from the infected focus.
4. Hort, E. C.: Rational Immunization in the Treatment of Pulmonary Tuberculosis, London, 1909; and Brit. Med. Jour., Feb. 13, 1909.
5. Jour. Exper. Med., 1909, xi, 100.
6. Arb. a. d. Kais. Gesundheitsamte, 1907, xxv, 164.
7. Johns Hopkins Hosp. Bull., 1907, xviii, 245.
8. Proc. Roy. Soc. Med., Med. Sect., April 1, 1909.

THE EPIDEMIOLOGY OF POLIOMYELITIS

A PLEA THAT IT MAY BE CONSIDERED A REPORTABLE QUARANTINABLE DISEASE*

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Half a century has elapsed since Heine published the first known description of the disease which is now commonly called anterior poliomyelitis, or as he designated it, spinal infantile paralysis. Half a century is an extremely short time for a disease so hideous and uncompromising to hide the secret of its being; it might have done so much longer had it not been for the ghastly epidemic that occurred in New York in 1907, which permitted Flexner to initiate the experiments from which has flown his brilliant discovery of its cause.

EPIDEMICS

Poliomyelitis has prevailed epidemically in many parts of the world during the past twenty-five years. The great epidemics have been, that of Norway in 1887 and 1895; 43 cases in the first, and 20 in the second, recorded by Medin; that of Rutland, Vermont, in 1894, 126 cases, recorded by Caverly; that of Queenland in 1904, 108 cases, recorded by Ham; that of northern Norway in 1905, 437 cases, and of southern Norway in the same year, 103 cases, recorded by Wickman; that of Vienna in 1908, 266 cases, recorded by Zappert; that of Wisconsin in 1908, 352 cases, recorded by Manning; that of Rhenish Westphalia in 1909, 500 cases recorded by Rekzheh, Krause and others; and the New York epidemic in 1907, 2,500 cases, recorded by a collective investigation committee in 1909.

In 1908 Holt and Bartlett[1] collected the literature of thirty-five epidemics which had occurred prior to the

* Read before the Association of American Physicians, May 2, 1910.
1. Amer. Jour. Med. Sc., 1908, lxxxv, 647.

year 1907. Since that time about twenty epidemics, large and small, have been reported. Reference to the literature of these latter epidemics are appended to this article. The literature of the early epidemics will be found in the article by Holt and Bartlett.

The large number of cases in the recent epidemics indicate that many cases formerly diagnosticated as grip, rheumatism, neuritis, bulbar paralysis, etc., are now recognized to be clinical varieties of poliomyelitis. It is the signal service of Wickman to have emphasized the various clinical forms under which the disease may display itself.

A NEW DISEASE

The most remarkable secular mutation of poliomyelitis is that it is apparently a new disease. So far, nothing has been found in the literature to indicate that previous to 1843 the disease existed. In that year Colmer published[2] the report of a case of infantile hemiplegia that he had seen in West Feliciana, Louisiana, and brief mention of ten other cases of various forms of paralysis occurring in children which were probably dependent on poliomyelitis. It is worthy of remark that cerebrospinal meningitis escaped recognition up to the year 1834. The unheralded advent of a disease of which no trace has been met in history, is not uncommon. The English sweating sickness made its appearance abruptly in 1486, and disappeared with equal abruptness in 1551.

Because of the short time that we have been familiar with epidemic poliomyelitis we are unable to say whether or not it is subject to the alternating periods of quiescence and recrudescence that are so common in other epidemic diseases. In this country it has not prevailed epidemically twice in the same place, unless the mild epidemic of 1909 in that portion of Brooklyn known as East New York may be so considered, nor can we say that it displays conspicuous multiannual nutations, to use Ransome's designation for fluctuations in prevalence and virulence extending over periods of from ten to fifty years. Poliomyelitis may be constantly more or less existent in a densely populated large city such as New York, but its existence is known only to individuals who may come in contact with it. When the disease shall be put on the list of reportable diseases, then it can be determined what its multiannual fluctuations are. One fact that is worthy of attention, is that during the epidemic of 1907 in New York, the death rate from other epidemic diseases was not lower than it usually is. This is contrary to what has been noted in other epidemic diseases. For instance, when scarlet fever prevails, the death rate of measles is apt to be low and *vice versa*.

SEASONAL OCCURRENCE

The most remarkable thing in the epidemicity of poliomyelitis is its seasonal occurrence. It occurs as invariably in the summer months as smallpox does in the winter months, and the advent of cold weather seems to terminate epidemics in every instance. One may readily draw the inference from this, that cold is inimical to the saprophytic growth of the non-obligatory parasite, but to make such inference legitimate, it would first have to be proved that the virus is parasitic in nature. In several instances it has been noted that the summers have been particularly dry. The only exceptions to this are a small epidemic reported by Litchfield, of Sydney, who notes that the summer was wetter and cooler than usual, and one in San Francisco in May and June, 1901, reported by Woods,[3] in which there were fifty-five cases.

2. Colmer: Amer. Jour. Med. Sc., 1843.
3. Occidental Med. Times, xvii, 77.

COMMUNICABILITY

The next most interesting feature of epidemic poliomyelitis is its communicability. Until recently it has been a matter of personal opinion whether or not the disease was communicable. Those who have reported epidemics have expressed their conviction that the disease was probably contagious and such occurrence as that reported by Pasteur,[4] in which seven cases occurred in one family, seemed to leave no doubt of the contagiousness of the disease. The description of an extensive epidemic in Stockholm in the summer of 1899, in which in various houses two cases of the disease occurred, and in several families, in which two or three cases were observed amongst relatives who had had contact with the sick, went far to corroborate this belief, and when Geirsvold was able to trace the disease from one village to another, and from one house to another, the contagiousness of the infection began to be realized. Since the publication by Wickman[5] of the epidemic which occurred in the summer of 1905 in southern Norway, the contagiousness of the disease has been admitted. In the majority of instances some contact could be traced between one patient and another, and even the spread of the disease from one village to another could be traced by the passage of the individuals from town to town.

The most remarkable contribution to the study of its contagiousness, however, has been made in our own country by Dr. George P. Shidler,[6] of York, Nebraska. Dr. Shidler seemed somewhat in doubt whether the spinal disease which prevailed epidemically in York county in July, 1909, was poliomyelitis or cerebrospinal meningitis, but there can be no doubt that it was the former. Some of his cases are most illuminating in showing the contagiousness of the disease. For instance, a woman went with her child to the wedding of a sister in whose house a younger sister was ill with the disease; nine days afterward the mother, with the child, returned to her own home another of her children came down with the disease. In an adjoining house there lived a family of six children; all of them developed the disease; a woman who came to visit this family brought her baby; in five days it died of the disease. Soon after this, quarantine was established, and the disease was checked. A number of other instances quite as striking as this are published, but the most important contribution to the epidemiology of the disease, is the number of cases that occurred in families in which there were two or more children, all of whom acquired the disease. There were six cases in a family of six children; four cases in a family of six, four cases in a family of five, four cases in a family of four.

Contact with a person sick of the disease is not necessary that another person may contract it. There are numerous examples of contagion by indirect contact; that is, a person who does not have the disease carries it from a victim of the disease to another at a distance, who then falls ill of it. This has been established by the record of several epidemics, but by none more strikingly than those reported by Wickman and by Shidler.

INCUBATION, DISTRIBUTION AND MORTALITY

The period of incubation may be as brief as four days, or it may be a fortnight. From a study of their publications alone, it must be accepted that poliomyelitis

4. Pasteur: Tr. Clin. Soc., 1897, p. 143; Taylor, J. M.: Philadelphia Med. Jour., Jan. 28, 1898; Neumark: Med. News, Jan. 28, 1899; Geirsvold: Norsk Mag. f. Laegevidensk, 1905, p. 1280.
5. Wickman: Beitrage zur Kenntnis der Heine-Medinchen Krankheit, Karger, Berlin, 1907.
6. Shidler, George P.: The Epidemic of Spinal Disease in Nebraska, THE JOURNAL A. M. A., Jan. 22, 1910, liv, 277.

STATISTICS OF EPIDEMICS

Year and Season.	Locality.	Topography and Hygienic Surroundings.	Number of Cases.	Deaths.	More Than One Case in Family.	Author.	References.	Remarks.
1907 Summer and early autumn.	Sweden.	Towns and county.	100 in the epidemic of '05, 50 in '06.	150 corrected mortality. 167%.	Many examples.	Wickman	Beiträge zur Kenntnis der Heine-Med. Krankheit, Berlin, 1907.	The most complete presentation of the subject extant.
1907 Summer	Pennsylvania. Ridgway	County—good	50	4	No.	Terriberry	Long Island Med. Jour., Dec. 1907.	The disease extended down the valley in a definite direction.
1907 Summer	Michigan. Oceana Co.		20	Not given.	No.	Griffin	Jour. Michigan State Soc., Feb., 1908.	Meningeal symptoms were common. Pigs and chickens also affected.
1907 Summer	Pennsylvania. Dubois	County and village.	100	A few.		Free	Jour. Nerv. and Ment. Dis., Apr., 1908, a brief abstract of paper read before the Phila. Neurological Soc.	
1907 Summer	Wisconsin. Gale-ville	Rural.	22			Jegi	Wisconsin Med. Jour., Apr., 1909.	
1908 August to October.	Wisconsin.	Bad sanitation and sewerage; surface wells in marsh and near privy.	352 in the state. 167 in Eau Claire County.	54		Manning	Wisconsin Med. Journal, April, 1909.	29 cases followed direct exposure to infection; 25 cases immediately after a case in same house; 2 in houses where disease prevailed 3 and 20 years before.
1908 Summer	Minnesota. Moo-e Lake, Barnum, Wadena.	Rural.			In 1 family of 6 children, 5 ill; 2 died, 3 recovered; another of 5 children, 3 ill, 1 died.	Hamilton	Wis. Med. Journal, April, 1909; Northwestern Lancet, Minnesota, Oct., 1909.	Disease assumed type of neuritis; several patients had tonsillitis.
1908 Summer	Michigan. Flint	Rural and village.	30	5	One family: 2 little girls within a week.	Manwaring	Jour. Michigan State Med. Soc., April, 1909.	
1908 Hot, dusty weather.	Minnesota.	Good hygienic surroundings.			A few cases only; no isolation of any cases.	Hill	Northwestern Lancet, Sept. 1, 1909.	No evidence of the transmission of the disease from person to person or through infected houses or water, or by animals or by dirt-eating (common among children eating raw vegetables direct from the garden).
1908 April - June after dry weather.	Australia. Victoria	Densely populated districts; sanitation fair.	137	6	Majority of cases in families where 3 or 4 slept in same room or same bed.	Stephens	Intercolonial Med. Jour. Australasia, Nov. 20, 1908.	No severe pain in disease. Incubation period 3 to 16 days. Invasion, 0 to 7 days.
1908 July to September.	Minnesota. Northfield		20	4	4 in 1 family; 3 in another; 2 in another.	Strang	Jr. Minn. State Med. Assn. and Northw. Lancet, July 1, 19.9.	
1908 June to September.	Virginia. Salem	Town and vicinity.	25	3	No 2 cases in 1 family, even when other children were exposed.	Wiley and Darden.	THE JOURNAL A. M. A., Feb. 20, 1909.	Cool weather interrupted epidemic for 3 weeks; then hot weather brought on 2 new cases in August. Patients had pronounced hyperesthesia and sweating.
1908 June to September.	Massachusetts. Western part.	3 contiguous and 11 neighboring towns, on banks of streams; detached houses, no sewers in majority of houses. Sanitation not good.	69	5	2 cousins in same house, 2 brothers in a family, 2 cousins in another, 2 brothers in another, 2 sisters in another.	Lovett and Emerson.	Monthly Bul. Massachusetts State Board of Health, July, 1909.	All patients were exposed to valley influences. No correlations to curves of the temperature, rainfall and number of cases. Two to three times the number of children sick were exposed and did not become ill. Six patients over age of 17.
1908 Summer	Westphalia. Hagen	Not remarkable. (See note.)	100	Not stated; 9 autopsies.		Krause	Deutsch med. Wochenschrift, Oct. 21, 1909.	Great mortality among chickens. Shoots of small oaks covered with white fungus.
1908 Summer	Vienna and Lower Austria.	Ordinary; not bad.	266			Zappert	Wiener med. Wochenschrift, Nov. 13, 1909.	
1908 Summer	New York. Schenectady.	Good.	29			Clowe	Albany Medical Journal, vol. 19, 1908.	
1908 Summer	Germany. Marburg.		50			Romer and Muller.	Münchener med. Wochenschrift, Dec. 7, '09; ditto, Nov. 30, 1909.	Sore throats extremely common. Many examples of communicability from person to person.
1908 Summer	Pennsylvania. Lewiston		30	3	Two	Barnett	Therap. Gazette, Sept., 1909.	
1908 Summer	England. Essex		8	None.	Three and two.	Trevis	Brain, Nov., '09.	Could not trace spread of disease.
1909 Summer and autumn.	Rhenish Westphalia.		500	18.2 in 1 vicinity.		Rekzeh	Med. Klin., 1909. No. 45, p. 1704.	It followed an outbreak of acute poliomyositis.
1908 Summer	Russia.	Not remarkable.	49		Several instances.	Schwarz	St. Petersburg Med. Wochenschrift, Jan. 10, 1909.	In a village of 500 inhabitants.
1909 Summer	Nebraska. York County.	Hygienic surroundings good—fair.	200	15 =7.5%	Over 1 in family; 44% occurred in families with more than 2 children, all of whom took the disease.	Shidler	THE JOURNAL A. M. A., Jan. 22, 1910.	Shows the necessity of having epidemics properly studied. Perhaps the most important on record. The report is unfortunately fragmentary.

is a contagious disease. That its contagiousness varies needs scarcely be said. In the New York epidemic, the most extensive on record, the only evidence of its contagiousness was that there were two or three cases in a few families, but the most painstaking care to detect any evidence of its communicability was unrewarded.

The territorial distribution of some of the epidemics is noteworthy, especially the epidemic of Sweden in 1905. Although the disease was pretty generally distributed through the entire country, there were well-marked foci in which the disease was prevalent to a considerable extent, or to a slight extent, and the large intermediary areas in which the disease did not exist. This has been noted in several other instances, but in the New York epidemic there certainly were no foci of the disease. The disease has no apparent relationship to density of population.

The next most important fact obtainable from a study of these epidemics is that the mortality rate varies very decidedly in different epidemics. In some it is as low as 5 per cent., in others it is nearly 20 per cent. (the highest ever recorded was in an epidemic in Sweden in which the death rate was 46 per cent.) The former figures approximate the death rate in the New York epidemic, the latter that in York county, Nebraska.

INFLUENCE OF SURROUNDINGS

The most careful investigations have failed to reveal that the epidemic prevalence of the disease has anything to do with unhygienic surroundings. To be sure, in some instances it was noted that the sanitary conditions were poor, especially in some of the epidemics of Norway, (Geirsvold) but in the majority of the large epidemics such as those of Vermont, New York, Nebraska, Australia, and Westphalia, the hygienic conditions were good, and in some instances excellent.

The association of poliomyelitis occurring epidemically with other diseases has been made a rather important feature by many writers, and there are in the literature a number of cases showing such association. As a matter of fact it has no noteworthy relationship to infectious diseases. In several instances there was a great mortality among chickens (Caverly, Krause) and the latter writer made the interesting observation that the shoots of small oak trees surrounding a house in which several cases occurred were noted to be covered with white fungus. This disease of the young oak shoots had only existed for a short time. This author also observes that there was a great number of cases among breast-fed children, and a number of writers point out that disorders of the digestive organs were very common. Personally, I made a close study of this question in the several hundred cases that I saw in the New York epidemic, and the conclusion that I drew was that digestive disturbances had no relation to the occurrence of the disease.

RECRUDESCENCE

A very remarkable fact was noted by Stephens[7] that there was a recurrence or recrudescence of the disease occasionally observed in the same child. Dr. A. A. Eshner thinks that he has observed a second attack of poliomyelitis in the same patient. It is most probable, however, that one attack of poliomyelitis gives immunity for a long time.

MODE OF INFECTION

We need no longer conjecture whether or not the disease is contagious. The points for our consideration are, what the spreading powers of the virus are, and what the facilities are for the spread of the contagion, and how does it gain entrance to the system. Spreading powers of the virus vary unquestionably with the epidemics. In some cases apparently it is impossible to make it out, and in other cases, as in the Nebraska epidemic and in the Westphalia epidemic, the spreading powers of the virus were commensurate with social contact, and the facilities for the spread of the contagion depend on such contact. From a study of the disease clinically, no information has been obtained as to how the virus gains entrance into the system. From experiments on monkeys, however, Flexner is convinced that the portal is the same as in epidemic cerebrospinal meningitis, namely the nasopharynx. The necessity of adopting measures to keep this mucous membrane in a state inimical to infection in children of a community in which the disease is prevailing is obvious. The period of incubation is from five to ten days. It may be longer in some instances, and quarantine for a fortnight or longer would seem to be proper.

NEED OF QUARANTINE

Boards of health should be urged at once to place poliomyelitis on the list of reportable diseases and to formulate measures which may be quickly enforced to constitute the strictest quarantine. Although the death-rate is comparatively low in some epidemics, it is apparently high in others, and our utter inability to influence the disease after it has begun, in conjunction with the fact that it maims the vast majority of those that survive it, should spur us to every effort, individually and concertedly, to stamp out the ghastly disease. That quarantine shall be of real value we must learn to detect the so-called atypical cases, particularly the "meningeal" cases, and those in which paralysis does not occur.

PATHOLOGY AND DIAGNOSIS

We must forget the description of the text-books and realize that poliomyelitis is an acute infectious disease of the cerebrospinal axis and its covering, the pia, with a pronounced and inexplicable predilection for the gray matter of the anterior portion of the spinal cord, which it nearly always succeeds in affecting before its pathogenic impetus is satisfied. But it affects the gray matter in one case profoundly; in the other triflingly, and the symptoms that result must of necessity vary with the intensity of this affection and with the portion of the cerebrospinal axis that bears the brunt of the lesion.

We must also learn to diagnosticate the disease early, a task more difficult than the interpretation of the so-called atypical cases. It has been recently suggested by Flexner (verbal communication in the discussion of this paper) that in view of the frequency of a degree of leptomeningitis in perhaps the majority of cases, the spinal fluid withdrawn early in many of these cases will show an increase of proteids and changes in the lymphocytes which will suggest the diagnosis before the disease has an opportunity to attack the cord itself. We might legitimately entertain the hope from our knowledge of the diffusion of formaldehyde within the system that soon we may be in possession of a substance which will be adequate to check the progress of the disease.

37 West Fifty-fourth Street.

7. Stephens: Intercolonial Med. Jour. of Australasia, xiii, 1908.

Strangulated Ovarian Tumor in a Child.—J. M. G. Swainson (*Proc. Roy. Soc. Med.*, February, 1910) reports the case of a child aged 2, brought to the hospital with acute abdominal symptoms, pain and vomiting of four days' duration. The abdomen was rigid, somewhat distended, and the temperature was 100.4 F. A tumor was felt in the right iliac fossa. Operation revealed a strangulated ovarian tumor about the size of a tangerine orange and greyish black in color. The other ovary was normal.

PARALYSIS OF THE NECK AND DIAPHRAGM IN POLIOMYELITIS*

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The knowledge of the nature and symptoms of poliomyelitis has expanded enormously within the last five years. New ideas of the communicability and pathology of the disease have been accepted. Landry's paralysis, polio-encephalitis, and various painful paralyses are now included in one disease-concept. It is therefore with the hope that an unusual symptom-complex of poliomyelitis may find a place in the literature of the disease that I report a case of high cervical poliomyelitis causing a paralysis of the diaphragm and neck muscles and terminating in complete recovery.

The existing literature on this subject is very scanty. Neck paralysis in combination with loss of power in the extremities is not unusual; on the contrary, isolated neck palsies are excessively rare in poliomyelitis.

Paralysis of the diaphragm is scarcely mentioned in treatises on poliomyelitis except with the fatal type of Landry's paralysis.

There is but one recorded case (Erb's[1]) of a combined paralysis of the phrenic and spinal accessory nerves existing as the sole lesions of a high cervical poliomyelitis. The origins of the spinal accessory and phrenic nerves are close together on the upper cervical cord. The spinal branch of the spinal accessory originates in the anterior horn of the cord, as low as the sixth cervical nerve. It is simply a motor spinal nerve which has the unusual course of ascending into the skull and of leaving it again with a cranial nerve. In the neck the spinal accessory inosculates with the second, third and fourth cervical nerves and forms a plexus which innervates the sternomastoid and the trapezius muscles.

The phrenic nerve—4th cervical-nerve—arises from about the same tissue and innervates the diaphragm. Thus the two pairs of nerves originate in about the same area of spinal gray matter, and a focus of inflammation in the cervical cord might easily injure the functions of both phrenic and spinal accessory nerves.

The rarity of paralysis of the phrenic nerve may be due to the resisting power of its tissues to disease.

With paralysis of the neck muscles the symptoms are characteristic. The patient cannot rotate the head, hold it erect or raise it from the pillow. In sitting or standing, the head falls forward, backward and sidewise, not following the movements of the body; the head wabbles around on the body like the headpiece of a disabled marionette.

In Wickman's analysis[2] of the distribution of paralysis in the Swedish epidemic of poliomyelitis in 1905 with 479 cases, neck paralysis existed in nine patients. This does not include cases described as Landry's paralysis or paralysis of respiration, or cases of ascending paralysis in which all four extremities and the neck were paralyzed before the fatal issue. Thus, palsy of the neck muscles occurred in 1.9 per cent. of cases of the benign type of the disease; in only one case was there an isolated palsy of the neck. With the others loss of power in the neck was associated with paralysis of the extremities.

From the report[3] of the Collective Investigation Committee of the New York epidemic of poliomyelitis of 1907, one would conclude that loss of power in the neck is common. In 679 cases loss of motion in the neck occurred as the first symptoms in two instances, and at the height of the disease 299 patients (39.8 per cent.) could not hold up their heads. As to this symptom both the questions of the committee and the resulting answers are vague as to whether the inability of the patient to raise his head came from general prostration or from paresis of the sternomastoid and trapezius; yet a fair conclusion is that in a considerable number of cases there existed a motor palsy of the neck.

It is interesting to note that the committee made an analysis of the residual disability in 318 cases in the same epidemic of poliomyelitis and no mention is made of a neck palsy, so that one may draw the conclusion that this symptom generally disappears. That with the neck paralysis of poliomyelitis a complete recovery generally follows may also be inferred from the last edition of Starr.[4]

In an analysis of 1,292 permanent palsies from poliomyelitis collected from the statistics of Starr, Duchenne, Seligmuller, Sinkler, Lovett, no paralysis of the neck is recorded. Starr, however, states that during the disease, the neck muscles are occasionally weak and that the paralysis may extend to the neck, throat, face and even the eyes, giving rise to the symptoms of bulbar palsy, the polio-encephalitis inferior and superior of Wernicke.

Oppenheim and Zappert[5] do not mention paralysis of the neck or diaphragm in their articles on poliomyelitis.

Fetra[6] states that in 63 cases rigidity of the neck existed in eleven cases and a paralysis of the neck and larynx in one case.

Buzzard[7] says that in poliomyelitis there is occasionally a rapid atrophic paralysis of the muscles of the head and trunk; and Holmes states that paralysis of the diaphragm is in the majority of cases only part of a general peripheral neuritis or poliomyelitis.

PARALYSIS OF THE DIAPHRAGM—PHRENIC NERVE

Wickman[8] says that the pathologic disturbances of the mechanism of respiration in poliomyelitis are partly due to an affection of the spinal center of the intercostal muscles and diaphragm, and partly to a lesion of the origin of the vagus nerve. It is not always possible to distinguish whether the respiratory distress comes from a high cervical or a pontine source. An injury to the pneumogastric of medullary origin usually shows itself by recurring attacks of dyspnea and tachycardia.

With an isolated bilateral paralysis of the diaphragm the symptoms are usually very clear. The respiratory abdominal movements are the reverse of normal. In health during inspiration the abdominal viscera are depressed and the abdomen is protruded. With a diaphragmatic palsy the upper abdomen recedes during inspiration and is pushed out during expiration. Breathing is labored and difficult. Any effort causes cyanosis and dyspnea. The lungs are nevertheless clear of pathologic sounds. The prognosis is always serious, partly from the danger of pulmonary infection, and is especially grave if associated with bulbar symptoms. If the paralysis of the diaphragm is complicated with a loss

*Owing to lack of space, this article is here abbreviated by the omission of citations from the literature of the subject. The complete article may be found in the author's reprints.

1. Erb: Deutsch. med. Wchnschr., 1906, p. 1899.
2. Wickman: Heine-Medinschen Krankheit, pp. 139-276.
3. Report of the Collective Investigation Committee on the New York Epidemic, 1907, p. 45.
4. Starr, M. Allen: Diseases of the Nervous System, 1908, p. 270.
5. Pfaundler & Schlossman: Diseases of Children, iv, p. 172.
6. Lapetra: Trans. Am. Pediat. Soc., 1908, p. 164.
7. In Osler's Modern Medicine, vii, 258.
8. Wickman: Heine-Medinschen Krankheit, p. 34.

of power of the intercostal muscles the patient will probably suffocate. This danger is greatest in the first week, after which time the outlook improves.

REPORT OF CASE

The history of my case of cervical poliomyelitis causing paralysis of the neck and diaphragm is as follows:

Patient.—John D. was a boy of 4, a patient of Dr. Villiaume. Previous to his illness a baby brother, breast-fed, had sickened August 29 with fever, vomiting, diarrhea and general tenderness and died in a few days; and a cousin, also in the same house was attacked with symptoms of meningitis and taken to Ohio. Both these were probably cases of poliomyelitis spreading by direct contagion. John D. sickened September 4, with pain and tenderness in the limbs, trunk and neck, vomiting, fever, 104, pulse 150, and retention of urine. Later the pain and tenderness lessened, but there was still soreness and muscular twitching in the limbs, and in a day or two a flaccid palsy developed in the muscles of the neck. There were no convulsions; the boy was slightly delirious at times.

Examination.—I saw the patient first September 8, the fifth day of the disease. He was a well-developed boy, lying in a reclining chair, breathing with great difficulty. The pulse was 110, regular; respiration 42. The lungs were clear; there was a complete paralysis of the neck muscles so that the patient had no control of his head. The head fell backward and forward and sidewise unless held with the hands or resting on a pillow. The neck was not tender. Its muscles did not respond to the galvanic or faradic current. Evidently there was present a paralysis of both spinal accessory nerves injuring the function of the sternomastoid and trapezius muscles. Most of the child's distress arose from difficulty in breathing. The whole chest moved with great effort during respiration. With inspiration there was slight recession of the anterior ribs and the upper abdomen was drawn in; it bulged out at expiration, indicating a bilateral paralysis of the diaphragm. The right knee-jerk was absent, the left normal; sensation was normal.

Course of Disease.—In the evening there developed great cardiac depression, rapid pulse and intense dyspnea, giving rise to the fear that the myelitis had invaded the medullary tract. This distress passed away in a few hours. After this for ten days the child remained in stationary condition and was fairly comfortable except that the respiration was labored and rapid and that the neck muscles were useless.

September 17: Fourteenth day of illness. Dr. James W. Putnam in consultation. There was no fever; respirations 40, pulse 120 to 140. The face was often flushed; the pupils were evenly dilated; the lungs were clear; the heart sounds good. The neck muscles were still paralyzed; did not respond to faradism. The abdominal muscles responded to faradic current; the upper abdomen receded at inspiration. Evidently the condition was due to a high cervical poliomyelitis affecting a focus at the origin of both pairs of phrenic and spinal accessory nerves.

October 21: Forty-seventh day of illness. There had been general improvement since last mentioned date. Respirations were 31; pulse 96. Both knee-jerks were lost. Respiration was easy and normal. The abdomen bulged at inspiration; the abdominal reflexes were good on both sides. The head could be moved rather feebly from side to side and also drawn forwards. The sternomastoid was partly restored. The head could not be moved backwards. There was no power in the trapezius; all the neck muscles wasted and flabby; all twitch with the galvanic current.

The paralysis of the diaphragm began to improve after the third week and had disappeared by the sixth week. The child improved rapidly in health. A jury-mast support enabled him to support his head. About March 1 the jury-mast support was discarded and the child played about without artificial support to his head. All of the muscles of the neck could be moved, although the sternomastoid was still somewhat weak. There was no apparent wasting of any muscle. The course of the disease showed that the myelitis affected a small focus in the cervical cord between the third and sixth cervical nerves, temporarily destroying the function of both phrenic and spinal accessory nerves; the lesion about the phrenic nerve caused a severe but temporary disturbance of respiration. The paralysis of the neck muscles lasted about four months, after which time both sternomastoid and trapezius recovered their power.

The treatment—protection from chill and respiratory infections, rest, diet, strychnin, electricity—was skilfully carried out by Dr. Edward Villiaume.

CONCLUSIONS

From the meager literature of paralysis of the neck and diaphragm in poliomyelitis I would draw the following conclusions:

1. Cervical poliomyelitis affecting only the origins of the phrenic and spinal accessory nerves is rare, but in the two recorded cases recovery occurred.

2. Paralysis of the neck muscles occasionally occurs in poliomyelitis and except in Landry's paralysis the prognosis is favorable as to restoration of function; some improvement always takes place.

3. Paralysis of the diaphragm is exceptionally seen in poliomyelitis and that, although dangerous, recovery is possible.

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THE PROBLEMS OF THE PHYSICIAN CONCERNING THE CRIMINAL INSANE AND BORDERLAND CASES

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The usual way to learn about diseases is to take up individual cases and to determine what specific matters stand out in the experiment of nature, and what special things shall be formulated into a plan of treatment or management.

When a whole field like that of psychiatry and its legal aspects in criminal cases is to be the starting point, one likes to take for granted a considerable experience with specific cases of the disorders to be subjected to such a special inquiry. But I do believe that even a general discussion of the general topic is bound to throw some light on how to become better acquainted with such a class of people as the insane.

At the very outset the problem appears rather different to the physician from what it appears to-day to the layman. The layman, and I am afraid most lawyers, consider insanity as a condition characterizing a more or less final subdivision of humanity, which is, or should be, fenced in by asylum walls. Asylum walls have indeed long been the most impressive and most intelligible definition of the whole group. Our text-books of mental diseases have up to recently been to a remarkable extent descriptions of what belongs in asylums, very careful of making their distinctions in the traditional terminology of mania, melancholia, paranoia and the terminal and senile and paralytic dementias. To make my first point as briefly as possible: Insanity is not a "disease" in the sense in which tuberculosis or leprosy are diseases, but it is a condition to which a number of totally different diseases may lead; some of them clearly mental disorders from the outset, mental defects, or poorly balanced mental habits miscarried to a point where the individual is no longer able to extricate himself, where he cannot be considered competent to manage his own affairs and to look out for his personal interests, not to speak of the altruistic demands. Some of these other diseases which may lead to insanity are more or less clearly the effect of poisons or of the undermining of the meta-

bolism of the nervous system. Still others are diseases directly affecting the structure of the brain, through tumors, or injuries, or vascular disease or the like.

The nervous system is in one way a very enduring and hardy tissue; it loses least in states of emaciation, but it has little power of reconstruction if once organically damaged. This is the cause of the existence of the irrecoverable wrecks who no doubt form a class, requiring for life special care and protection against themselves and the encroachment by others.

But on the other hand functional disorders of a character most alarming to the uninformed are absolutely curable; the patients pass through periods in which they are not themselves, and then again reach a comparatively normal state in which they can hardly understand the abnormal actions ascribed to them. The fact that 20 to 25 per cent. of those who come to our state hospitals can be discharged recovered, and nearly as many fit for a protected home existence, shows that we are dealing not with a permanent class of individuals but with a group of diseases apt to present a common feature of more or less deep and more or less permanent disorder of conduct and behavior. The number of those who pass merely as nervous, but who have really the same disorders with less marked affection of conduct, is difficult to guess. From a medical point of view it is well to remember that the common saying that neurasthenics and hysterics and psychasthenics do not become insane, is a comforting tradition, but one not well borne out by experience, when these terms are used in a broad sense.

If we do not deal with a definite unit but with widely differing disorders, what is the common link that makes us speak not of "insanities" as we should, but of "insanity"?

They tend to make it necessary to interfere with the patient's own control and legal responsibility. They affect the patient's ability to regulate his conduct and behavior, and expose him and others to risks, perhaps only through the patient's "self-respect," or through his unwillingness to accept ordinary rules of hygiene and medical direction, refusal to rest, refusal of food, tendency toward self-mutilation or suicide, or aggressiveness and liability to disturbance of the peace, or actual violent assault. Or the patient may betray an unwarranted yielding to impulses, such as unchecked sexual yearnings, from merely platonic pursuit and insistence by letter to startling expressions of affection, proposals and attack, or a mere surrender to the opportunities of immoral houses; or the impulse leads to drink and its dangers; or to a wild and reckless spirit of expenditure, shown, for instance, by buying a dozen pairs of shoes, ordering a champagne bath in the Waldorf-Astoria, or ordering a piano each to a whole string of female friends; or inner emptiness and unrest combine to prompt kleptomania, or incendiarism. Or a husband says that his wife has either become a tantalizing fault-finding devil, making his life miserable by insinuations and scenes and complaints and inconsistent behavior, or she must be sick; it is a question which he cannot settle or put up with any longer; something must be done to control the aberration. Or the wife of a well-known ghost-hunter begins to take the spirit-warnings too seriously, beyond all reason, and creates embarrassing situations; he has to check her even against her remonstrations. Or note the attacks of terror in epilepsy, to the fright or suspicion in alcoholic delirium and states of persecution, and to all the strange and startling outbreaks of the fantastic dementia præcox. These are some of the innumerable difficulties the patients, or their friends, get into and the point is reached at which the former have to be checked. When the danger is acute and great as in a fever delirium, matters are not minced; the patient is unquestioningly left under the direction of the physician, taken to a hospital, kept there and if necessary, held in bed and subjected to the treatment and hospital rules without any discussion about the legal rights of the citizen. The citizen's first duty there is to submit to lawful order and best régime. In many other "insanities" the patients are just as unable to control themselves and to look out for themselves; they also remonstrate and resist; but in such a way as to appeal more connectedly to the fellow-citizen and to demand legal consideration. To take such patients to general hospitals is unsuitable, because they often do not do well there, are disturbing, often do not feel sick, and feel out of place. They need physicians and nurses trained to meet the peculiar demands, and perhaps merely a routine of orderly quiet life with occupation, and sufficient rest and protection against irritating influences. The only available places are the private sanitariums and our state institutions which serve as homes for the incurable and for the acutely disturbed and also for those in the protracted states of mental unbalance. To judge from contact with many trustees and visitors, these institutions are places really little known by the public; little known even by the authorities controlling these hospitals, and by the judges and the average physician and other persons likely to be appealed to for advice when the conduct of a patient becomes difficult to control. Outsiders repeat antiquated tales not much better than the gossip palmed off by the "antivivisectionists." The consequence has been a barbarous inconceivably stupid fence of laws around the institutions which alone are adequately equipped to bring timely or lasting help to the affected patients. The whole conspiracy of facts and imaginations and traditions has created a class of humanity under a special legal ban called forth for the protection of a few cantankerous individuals, where all that is necessary is the application of the quarantine principles, and provisions for legal reinforcement of medical persuasion and advice, or provisions for legal relief from unwarranted interference.

Nobody has a right to go where he pleases with diphtheria or small-pox. Nobody has a right to display himself in the street in a delirium. Nobody has a right to attempt or to commit suicide. The more we look on the matters as issues of health, the more do we accept even the impending danger as reason for action. We do not want to wait until a person exposed to small-pox breaks out all over, because he is a danger to the community before that. Even if a diphtheria-carrier has not diphtheria sores, he must be quarantined if he is the carrier of a virulent strain. In the mental cases much stronger evidence is asked for as a rule by those who do not know the seriousness of the conditions. Danger and threat of suicide can be foreseen by any experienced physician; but a judge may want evidence of unmistakable threats and attempts made. It actually looks more as if the field were ruled by the principles of criminal law with its provisions that nobody can be punished for a thing that has not been done.

We see then even in the case of non-criminals that the term "insane" is a high-water mark justifying the application of *some process of quarantine* or commitment. It applies to a stage or condition of many kinds of disorders which can exist without being destructive of

safety or self-control, but are apt to involve the behavior so as to make protective measures necessary. Quarantine principles would be the ideal thing. Since the restriction applies to individuals who often do not submit to persuasion (as do most reasonable subjects of quarantine) but who object and fail to understand the situation, the right of legal appeal must, of course, be freely granted. It is decidedly an anomaly that has made legal decision obligatory for all admissions to a hospital even if there is not the slightest objection on the part of the patient or friends, or on the part of any one except the patient deprived of his own judgment—merely to do justice to the railroading yarns of the dime-novel type or to relieve the superintendent of responsibility.

By another anomaly the committing judge asks the testifying physician whether the patient is insane. To my mind it is the physician's business to state what the patient says and does and shows in the way of disease, and that the disorders thus reported prove him to be incompetent to direct his own case. It is the judge's privilege to declare that the patient's condition is that of insanity, while the physician uses whatever medical terminology he may favor, terms which hold good whether the case has reached the high-water mark of insanity or not, and which do not put a painful stamp on the patient and family.

Whenever we say that a patient is insane, we say no more than that he is sick, and that the disorder is one of the ways of disorder of conduct and behavior demanding certain special precautions of management and especially protection against his or her own warped judgment and impulses. The nature and condition of the disorder which is the physician's chief concern is immaterial to the judge, who cannot know it without study and thus has to keep alive a phantom-unit "insanity" and the notion of an insane class, instead of a problem of quarantine.

We hear sometimes of a contrast of medical and legal definitions of insanity. This is an absurdity. "Insanity" is a term that I, as a physician, hardly ever use spontaneously. It is a practical designation for a practical situation and through our laws it has become a legally sanctioned term, while in psychopathology it has become a secondary issue. In some text-books there are peculiar strings of words called definitions of insanity. One of the simplest definitions demands that there should be protracted morbid deviation of the condition and conduct of the patient, such as incapacitates him to think, feel and act in relation to his environment in harmony with the standards of his bringing-up, and such as would entail a danger to himself and others.[1]

Law wisely abstains from any attempt at a definition of "insanity."

As a matter of fact it has several widely distinct standards and always according to the specific issue, namely:

1. Commitments.
2. Legal and testamentary competency.
3. Criminal responsibility.

1. This is a good formulation for matters of commitment but too lax for those who assume that insanity should spell irresponsibility. The following definition of the issue in criminal cases was offered by Judge Barnes: "If at the time the crime was committed the defendant knew it was wrong to commit such a crime and had the power of mind to choose either to do or not to do the act and of controlling his conduct in accordance with such choice, then he ought to be held responsible, although he was not entirely or perfectly sane." This definition does not use the term insanity, which really becomes an undesirable complication.

The common link is the question of the existence of a mental disorder. The declaration of the legal status of insanity depends on special conditions for each of the three issues mentioned. The commitment, of course, is the most widely and fortunately most liberally applied category. As such it means nothing but "fit to be taken to a hospital against his consent." For certain contracts and even as a witness such a patient can still be competent, at least as much as a child between twelve and the age of majority, and in many points more. To take away the right of management of the property, requires an additional legal procedure.

With regard to testamentary capacity, the law has definite standards of a peculiarly broad character: the testator may be as insane as can be in any other sense as long as he knows the nature of the bounty and his natural responsibilities to his family, and the property-relations. Any delusions or disorders not involving these do not make the person incompetent.

With regard to crime the matter is not simple.

Many physicians think that a declaration of insanity is equivalent to a declaration of irresponsibility. The consequence of this assumption is an endless quibbling and begging the question. If one feels that one should say irresponsible, one says insane; if responsible, not insane. And yet afterward the excuse is urged that the person was irresponsible because of insanity; or the public may demand the execution of a Prendergast or a Guiteau, in the face of undeniable mental abnormality, so that evidently the issue must be different from that of mere mental disorder.

In this matter the written law is somewhat misleading. The pertinent paragraphs of the New York Code read as follows:

§ 20. Irresponsibility, etc., of idiots, lunatics, etc.

An act done by a person who is an idiot, imbecile, lunatic or insane, is not a crime. A person cannot be tried, sentenced to any punishment or punished for a crime when he is in a state of idiocy, imbecility, lunacy or insanity so as to be incapable of understanding the proceeding or making his defense.

§ 21. Irresponsibility, etc., of idiots, lunatics, etc.

A person is not excused from criminal liability as an idiot, imbecile, lunatic, or insane person, except upon proof that, at the time of committing the alleged criminal act, he was laboring under such a defect of reason as either

1. Not to know the nature and quality of the act he was doing; or,

2. Not to know that the act was wrong.

A similar see-saw appears in Section 22 in regard to intoxicated persons.

No act committed by a person while in a state of voluntary intoxication, shall be deemed less criminal by reason of his having been in such condition. But whenever the actual existence of any particular purpose, motive or intent is a necessary element to constitute a particular species or degree of crime, the jury may take into consideration the fact that the accused was intoxicated at the time, in determining the purpose, motive or intent with which he committed the act.

In practice, physicians are inclined to appeal to Section 20 for simplicity's sake. The legal practice calls for the application of Section 21.

Another complication comes through the relation of the corollaries of a state of "insanity" to the punishment. When punishment is measured by responsibility and mental disorders reduce the responsibility, we come to the further inference that the perpetrator of an insane act shall go free. We shall discuss this monstrosity later.

Let us turn first to the criminal acts themselves. Crime is any act that subjects the doer to legal punish-

ment. Without a specific law no act can be called a crime. Which of these acts occur among the insane?

In this description of how morbid disorders of conduct and behavior can influence action, I have already pointed out various ways that make the patient liable to misdemeanor. Looking over the mental disorders we see certain types predisposing to special types of crime.

The bulk of morbidly determined crimes is attributable to states of defective or uneven abnormal development, i. e., the various grades of imbecility, probably about 22 per cent. Certain forms of imbecility and defective balance are directly called moral insanity. Here we find thefts, forgery, swindling, sexual assaults and exhibitionism and other perversions, sexual murder, acts of revenge and spite, or mere impulse such as incendiarism. About 12 per cent. of the cases in Köppen's statistics belong to the paranoic group, much more likely to present distinctly aggressive impulses: murder and assault, disturbance of the peace in church or homes, insults, libel, threats and forgery or acts of revenge and sham defense. The simply paranoid forms of the deterioration-processes lumped together as dementia præcox shine with tramp-life, prostitution, exhibitionism, forgery, thefts and occasionally acts of revenge or sham-defense. The paralytic and senile become collectors, thieves, sexually aggressive, perjurers. Their occasional impulsive acts ally them with the epileptics, who present the most dangerous and brutal assaults, murder, rape, theft, and calumny; hysterics follow similar paths, alcoholics perform acts of revenge, and supposed self-defense, and at times epileptoid murders. Depression has led to family murder, a sort of vicarious suicide; or even murder committed for the sake of a passive suicide by execution, and other abnormal ways of breaking through the morbid feeling of tension and restraint. Manic excitements prompt to transgressions and excesses, especially in sexual matters, or vituperation or violence.

The question arises: are there any crimes which are clearly the act of an insane person? Concerning this point I should be cautious. Some of the crimes are so blind and violent that they exclude all cool consideration. But this may hold for any acts of passion. If a murder is well planned and well covered up, or if the delinquent acts normally and with perfect coolness, the act may still be the clear result of an abnormal mental state. It is by far the best rule to claim that no crime or act as such can be estimated properly without a study in the light of other acts and tendencies and the general reaction and complete record of the person.

The practical side of the question of the criminal insane is to determine not so much what crimes occur among the insane as what shall be done about certain crimes in which the issue of insanity is raised, and what the aims are of the criminologist and the judges in their decisions. I assume that the aims are: (1) to ascertain the facts; (2) to determine the guilt; (3) to assign the punishment or judicial remedy; (4) to bring about the effects expected from punishment. As to the determination of guilt, we seem to have a three-cornered interdependence between responsibility, guilt and punishment. The only safe statement is, I suppose, that responsibility is liability to punishment. We might make that mean that every defendant exercised a certain amount of choice to do better or worse. The lesson which the punishment should teach him and others is that he should have chosen the better course and that, not having chosen it, he has made himself liable to that punishment. It is further supposed that it is his duty as a citizen to know that lesson and that he cannot be excused for not knowing it. Irresponsibility through insanity would, I suppose, only apply if on account of mental defect he never could have learned this, or even with this helpful experience or knowledge, he would not have been able not only to choose the better, but really to know his moral lesson. The whole question of guilt is forced to operate with a hypothetical argument because it presumes an answer to the question whether his condition did allow or might have allowed him to know certain things and to make the proper use of what he did not use or choose. It is the theory of the intent that looms up. However that be, it certainly is best to leave out of discussion the question of free will and determinism which divides the camps in Germany. Practical will and practical determinability is all that concerns us. We need not prejudge the universe by a doctrine.

But now how about punishment? It is after all more than retaliation or correction. Our aim is also prevention and protection of society. In this direction jurisprudence cannot remain behind medicine very long. Its rule is, of course, that the individual shall not be punished for acts not committed. We cannot well speak of punishment for mere intentions. Yet we must correct intention. And those intentions which lie as it were in the flesh and blood of a constitution long before they are conscious, call for some measures, if the protection of society demands it. Social quarantine is the only hope for the future. Actual detention of antisocial elements and the prevention of their propagation are as much or much more our duty than is the quarantine of the leper and of Typhoid Mary and the temporary quarantine of the carrier of small-pox. Punishment which does not prevent is insult added to injury. The question thus should arise in every case and it should be addressed to the competent expert or a commission of experts: Should the mental disorder or condition found modify the punishment, or to speak more exactly, the disposal of the case? Is the person fit to undergo the ordinary course of justice? Will he be improved by it? Will he need other measures for prevention than the punishment which law considers a good enough method for the average? On this score I should like to say most emphatically that medical jurisprudence has made egregious blunders. It has been sentimentality-mad or the victim of verbal logic. Infinitely less harm would come from making the sick man take the consequences of his liability to such sickness just as we put a man liable to small-pox under quarantine, instead of letting free a lot of unworthies and raising an appetite for the plea of insanity to a point with exhibits which nauseate every sober-minded citizen. Physicians do not care to be the vaulting pole for escape from natural and proper consequences of a person's nature. It is true we want decent places for the persons detained. chances for a decent and profitable life. Men like Forel have long written and spoken for special colonies for special types of cases. My own feeling is that if we get decent prisons run as they ought to be, many persons now sent to asylums for criminals or let loose had better be sent to prison unless it can be shown that actual harm to their mental health would come from it.

Punishment was and is a means of correction in normal education. This has changed much during the past two generations. There has probably been too much of a reaction from the life of puritan duty. Laws would mean more if we could keep them stern and

firm. Among the insane we have abolished the word and thought of punishment. But we have the responsibilities for discipline. We want to make our patients as responsible as possible and it is mainly our task to protect them from spheres in which they would flounder helplessly. If you abhor the conception of relative or partial responsibility, I should stand up for the principle that there is no absolute irresponsibility even among the insane and that it is much better to deal with them from case to case for what there is sane in them, not with the principle of retaliation, but by placing them with a clear understanding just where they belong, according to their make-up and temporary condition. Where mental disorder is demonstrated, none but the principles of equity will wear well. Can they ever be looked forward to here? They would be as little cherished by the real criminal as the indeterminate sentence is liked by the professional; but every fair-minded victim would fare better than with our present way of using legal rules. A common-sense consideration of the facts of conduct and behavior is in order, if possible to avoid that the victim really becomes dangerous and is allowed to perpetuate the poor stock of our race. What a preposterous condition when juries have merely the alternative between the electric chair and acquittal! This is where help is needed and an introduction of equity-principles might justify preventive considerations.

We may be a long way from special colonies. Certain individuals can be employed *near* institutions, if they are too well to be kept there and too dangerous to go wholly free. And others should at least be asexualized—a point on which I hope more of our citizens will in time agree with us when enough evidence is at hand to convince open-minded opponents.

To look back one moment: The law must give us more clearness as to what it wants. It must be ready to deal with disease according to the principles of disease, and therefore realize the necessity of equity principles (rather than the "rules of the game" of evidence in a fight about liberty) and the necessity of consulting the expert not only concerning the indefinable term "responsibility," but also the effect of the special condition on the preventive steps required.

How, now, about the physician in a concrete case? In a genuine and unmistakable case of mental disorder in which an accident otherwise amounting to a crime failed to be prevented, the perpetrator will, according to our present practice, be taken to a jail, but probably be seen by a physician, if not taken immediately to the proper reception hospital, if one exists.

In almost all the *questionable* cases no move was made to get a competent and trained physician until the question of a "plea of insanity" arose. It should always be a suspicious sign if no move is made equivalent to the examination of the patient for a commitment as soon as possible after the act. Where the defense of the criminal is the main thing and insanity the only means of saving him from the consequence of his act, the procedure is usually from the start a perversion of psychiatry. Physicians are called as partisans; examinations must be made under the most unpropitious circumstances. There is no official impartial record kept such as we demand in a well-conducted hospital to-day; there are no trained attendants employed. As soon as the authorities have reason to suspect a mere suspicion of insanity, or of a plea of insanity, the immediate attention of a trained physician should be called; and to be on the safe side every prison physician should have training and experience in psychiatry. He should make a full examination with a satisfactory record and should have the proper type of attendants for the examined prisoner. During the whole stay of the prisoner or suspect the written record of the physician should be kept up, consisting of statements of what the prisoner said, did, and showed on medical examination. Where the condition is doubtful, some states can send the prisoner to a hospital for observation for a maximum period of six weeks. In making an examination for one side or the other the only way to proceed is to come as near as possible to the plan mentioned. Under well-regulated conditions the competent hospital men of the district should do the work for the state as state officials and they should have the right to apply for a period of hospital observation of the patient and always the duty to furnish a written report. The alienists of the defendant would naturally and automatically be guided by the standards of the official physicians.

Now the physician's share in the determination of guilt! The physician's duty above all things is to determine and report the existence of any mental defect or disorder at the time of examination and in the record of the past. This should consist in the simplest possible terms of what the patient did and said and showed medically, rather than a mere learned treatise on the diagnosis and symptoms which should be reserved for the summing up of the written record, if one can be demanded.

If there are no plain facts sufficiently convincing to form a demonstration of an abnormal trend, learned terms will only confuse. The aim should be to show that, in other situations and actions, an abnormality was present, and that it played a definite rôle in the determination of the act under legal consideration. To avoid ambiguity, the term "insane" and "insanity" should be replaced by "mental disorder," specified by its effects in various actions, including or not the act *sub judice*. In this, Mercier insists on a psychologic analysis of the acts. I agree to this only as long as we move on objective ground. The main question is that of intent. Therefore the relation of the existing disorder to the intent must be defined, and here comes the chief point at issue.

Unfortunately the rôle of the physician is at this point involved in an issue which I think should not be looked on as a medical question. If the physician has to say "yes" or "no" to the questions: Do you consider the patient "responsible"? and Do you consider the patient "insane"? he becomes part of the jury or in the absence of a jury expresses himself in a judiciary capacity. Neither responsibility nor insanity are medically useful or even admissible terms. The physician must make it clear that there is a mental disorder and that it had or had not a bearing on the act and, as far as possible, the evidence by which he can prove it. But the rest is a judicial interpretation gratuitously offered by a physician at the risk of being turned down by a jury or a judge who knows more of the law than the doctor, and, at the same time, appears to decide a medical question for him. I do not want to jeopardize the rest of my propositions by insisting too much on this subordinate point, however. I favor it because physicians are too well trained in their business and science to believe themselves able to give always an out-and-out positive or negative reply to a question to which they know science and plain fact can give only a conditional reply. Legal practice opposes the concepts of relative or diminished responsibility and for this the plain man or layman can

be had more readily than a man who must aim to keep toward the scientific attitude.

In each case in which a mental disorder is demonstrated, no matter whether it figures as insanity or not, the alternatives of allotment of punishment should be put before the expert for a statement as to the probable effect on the success of the aim of punishment or the effect on the disorder and the needs of protection of society.

Much has been said, and with sad justification, of corrupt medical testimony. It is one of the most disheartening displays of the low standards of our general and business morality. When nobody steps forward to slap the one who can say with impunity: "Every man has his price," we have to hear it until it becomes an accepted standard. And if the professional expert works for his client, what does he do? Ninety times out of a hundred his worst crime is that he assumes what he calls the lawyer's attitude. Where are the legal standards of the great masters? Why do we not ostracize a man who sacrifices the facts and his better knowledge to the undeserved success of his client? This is a matter of public standards of business morality and of morality within the professions. The scandal I am afraid is a symptom of our kind of general ethics. I do not know how the legal profession will check the doings of some of its most successful agents of perversion of fact. We physicians are trying to make some of the men accountable for their statements. But they invariably put the blame on the legal methods, the questions asked and the like.

For this reason I urge a wider use of the *written reports* of the observations and conclusions made by the medical expert which exclude the gambling of the questionaire without in any way excluding the most searching cross-examination. Most cases are simple and cause little trouble. But the cases which give trouble are just the ones in which a man who poses as expert should make a statement for which he makes himself wholly and unmistakably responsible, without any excuse or subterfuge. German expert testimony has its high standards through no other one tangible thing but this accessibility of written and responsible documents.

In trying to prepare this paper I deplored the absence of digests of the practice of our courts. When will the judiciary and legal world introduce research as an obligatory condition of a career of a teacher and put the young elements to work to keep up a system of monographs and digests and to make inquiries into groups of concrete cases and their specific difficulties and demands, rather than dialectic dissertations? The consideration of concrete cases as practical experiments alone will bring order into the bewildering chaos.

My theses are:

1. The solution of the medicolegal problem of mental disorders generally lies in a further development of the quarantine principle, medically and legally.

2. In handling the criminals presenting mental disorder, jurisprudence will have to develop rules of preventive care beside the rules concerning acts already committed.

3. To avoid begging the question, and confusion of definitions, the question of the bearing of mental disorder should not be settled under the heading of guilt only. Insanity and irresponsibility are not coextensive and should not be made so and are not safe terms medically and legally. Therefore, the procedure should cover:

A. The fact of commitment of the act.

B. The existence of mental disorder at the time and its bearing on the act.

C. The bearing of any existing mental disorder or tendency on the legal consequences of the act, the punishment, the prevention of similar acts, etc. In every case with mental disorder it should be obligatory to ask: What is the relation of the mental disorder to the act? and what does the mental disorder demand to make the punishment and correction and further prevention efficient?

4. In order to meet the problem of partial responsibility and crimes of passion, the law should create better alternatives than the unwritten law, and in cases of mental disorder, the equity procedure should be substituted for an unconditional declaration of not guilty.

5. I strongly suggest the requirement of written statements of facts and opinions by the experts employed as the only means of establishing standards.

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THE PHARMACOLOGY OF IODIN AND THE IODIDS*

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A satisfactory explanation for the action of medicines can be found only in a consideration of their chemical relations since drugs can act only by producing chemical changes. In the case of iodin the interrelation between its chemical properties and its physiologic action ought to be found quite readily, since it is an element and its chemical characteristics are well understood. A difficulty arises, however, in discussing the relations of any drug, from the fact that the animal system on which it acts exhibits such a complexity of chemical changes that we cannot adequately explain the effects of even the simplest element on it. Nevertheless it will be worth while to review briefly the more marked chemical properties of iodin to see how far we can go on the road to a rational explanation of its pharmacologic and therapeutic action. This element is remarkable, in the haloid group, for the comparative weakness of its chemical affinities and the ease with which it is freed from its compounds. In consequence of this property it is easily displaced from its combinations by oxygen, chlorin, and bromin. Hydrogen iodid or hydriodic acid is especially unstable. Iodin shows a tendency to form peculiar double salts, such as the combination with potassium iodid, giving the hypothetical compound, KI_3, and the double salts with mercury, such as potassium mercuric iodid, 2KI, HgI_2, or K_2HgI_4. The readiness with which it becomes free is shown in the well-known incompatibility between potassium iodid and ferric chlorid, in which case ferrous iodid is formed instead of ferric and a portion of the iodin assumes the free state. This reaction is largely due to the fact that ferric salts are capable of reverting to the ferrous condition and *vice versa*, but it must be remembered that quite similar changes are constantly occurring in the animal organism. Another property of iodin which must be of physiologic importance is its tendency to combine with fats and fatty acids. Similar reactions occur with alkaloids, with which it forms insoluble compounds, and with proteins, into the composition of which it enters to form new compounds and in many cases to displace the corresponding chlorin

* Read at a meeting of the Evanston and North Shore Pharmacologic Society, at Evanston, Ill., April 14, 1910.

ion. The iodo-organic compounds are comparatively stable and inactive and it is chiefly as the result of oxidation that the iodin again becomes liberated. One of the most important organic compounds of iodin is the globulin found in the thyroid gland, which undoubtedly plays an important rôle in the metabolic processes of the normal body. This substance has its analogues in other parts of the organism and it is believed that no living cell is entirely devoid of its organic iodin compound.

When we consider the unstable nature of its compounds and its readiness to enter into all sorts of compounds it is easy to see what a disturbing element free iodin must be in the animal economy. It may readily be compared to fire, which, useful, when under control; for the warmth which it affords, is to be dreaded when it is allowed to exert its destructive action unrestrained. That the system is able to use this agent in ordinary metabolism is undoubtedly due to the fact that the protein combination in which it is deposited in the thyroid is so slowly decomposed that its destructive action is just enough to secure the physiologic changes necessary for the removal of waste and for the control of nutrition. When for any reason this control is lost we see in the phenomena of hyperthyroidism the manifestation of a mild form of iodin poisoning.

From its chemical nature iodin can exist only for a short time in the animal system in a free state and when absorbed iodin is changed to an iodid or to a protein compound so that the internal actions of iodin are practically identical with those of the iodids and are to be considered with them. It is, not to be forgotten, however, that the iodids are readily decomposable with the liberation of iodin so that it is probable that the action of iodids on the cells and fluids of the body includes the temporary action of free iodin to a limited extent in their ordinary activity and to a much greater extent in circumstances in which this action amounts to that of a toxic agent.

The iodids are mainly very soluble, easily dialyzable, easily ionizable salts. These properties are responsible for much of their pharmacologic and therapeutic action. The easy solubility makes it possible for the organism to dispose of such amounts as are not easily combined with protein by elimination through the various emunctories. Thus, according to H. C. Wood,[1] John Marshall recovered 265 grains daily from the urine, in a patient under his care who was receiving 360 grains of potassium iodid daily. The dialyzable character of these salts enables them to enter cells readily but when within the cell they have combined with protein molecules they become colloids that will not dialyze out again until they have been changed to the crystalloid condition. Their ionizable character makes them ready to enter into double decompositions that disturb the chemical relations of the other conditions of the cell and alter the character of the cell plasma. Particularly the iodid ion tends to displace the chlorid ion and to cause its extrusion from the cell probably in combination with the potassium ion which is usually the metal introduced in combination with iodin.

With this brief discussion of the chemical relations of iodin we are prepared to enter on a consideration of the pharmacology of this element and its salts. We shall consider first the local action of iodin and second the action of iodids and the constitutional action of iodin.

1. Wood, H. C.: Principles of Therapeutics, Ed. 14, p. 375.

LOCAL ACTION OF IODIN

Iodin is essentially an irritant which destroys the cell, combining with its protein constituents and provoking a reactive inflammation on the part of tissues less violently affected. The affinity of iodin for the protoplasm of the cell is seen when vegetable cells are stained with Lugol's solution. The protoplasm receives a marked yellow stain indicating that the iodin has penetrated the cell and entered into combination with its protein constituents. The experiments of Lillie[2] on unfertilized *Arbacia* eggs indicate that, next to cyanids, the iodids of potassium and sodium have the greatest power of increasing the permeability of the plasma membrane and that they thus make possible the loss of the cell constitutents, instituting a series of changes which eventuate in the death of the cell. The destructive action of the element on the lower forms of life constitutes it a good disinfectant. Its value in the treatment of many skin diseases is largely owing to its disinfecting action. Iodin appears to be somewhat astringent, drying and puckering the tissues to which it is applied. The irritation of the deeper tissues develops, somewhat slowly, inflammatory changes which result in throwing off cells destroyed by the iodin and replacing them by new formed tissue. Iodin applied to wounded surfaces and to ulcers acts as an efficient disinfectant and promotes the subsequent healing of the underlying surface. Goebel[3] found a diluted Lugol's solution (iodin, 5 parts, potassium iodid, 10 parts, distilled water, 250 parts) an efficient disinfecting fluid for surgical use. The value of iodin in surgery has been the subject of several recent communications showing a renewed appreciation of an old and well-known remedy.

On mucous membranes the action of iodin is quite superficial, and especially when applied to the gums its destructive action is so limited that it forms one of the best applications for gingivitis. Especially in the treatment of interstitial gingivitis, the so-called pyorrhea alveolaris, it has proved to be one of the best of remedies. Its action on other mucous membranes is similar and the good results obtained from its use are easily explained by its disinfectant action, its destruction of tissue, particularly that of low vitality, and the stimulation of healthy tissue to regenerative action. The hyperemia induced by such stimulation plays a very similar part to the hyperemia induced by the method of Bier in the treatment of inflammation and infection.

INTERNAL ACTION OF IODIN

When absorbed into the blood iodin necessarily enters into combination so as to form iodids or possibly combinations with protein material. Its solution in the akaline media of the blood and lymph can be effected only with the formation of some oxidized form of iodin, such as iodates or perhaps a transient occurrence of the lower acids, which we know are very unstable. The action of iodin in its free state cannot, therefore, be quite equivalent to the action of the iodids since it involves the action of these unstable compounds which must have a destructive action corresponding to their instability. Iodin is not absorbed to a perceptible extent from the sound skin but from raw surfaces, wounds, and mucous membranes it may be readily taken up so that it may be demonstrated in the urine and may even produce symptoms of poisoning. In some forms absorption may take place through the skin. Thus Kel-

2. Lillie: Am. Jour. Physiol., xxvi, No. 1.
3. Goebel: Centralbl. f. Bakteriol., 1906, xliii, 86.

lermann[4] by inunction with iothion found that from 8 to 18 per cent. of the iodin was absorbed by the skin and excreted in the urine. Himmelsheber[5] attributes the occurrence of acute hyperthyroidism following operation for prolapsus uteri to the absorption of iodin from iodized catgut sutures.

The symptoms of iodin poisoning are throughout characterized by their irritant character. According as the irritation is produced on the mucous membrane of the gastro-intestinal tract, the internal organs, the respiratory mucous membrane, or the skin, various types of reaction are produced and these types are worthy of special study as they may point the way to therapeutic applications.

Large doses of iodin are irritating to the stomach and may produce gastritis. Suppurative gastritis has been attributed to the action of iodin, it being supposed that iodin produced a pustular eruption in the stomach similar to that sometimes occurring on the skin under its influence. From experiments on dogs with Pawlow's miniature stomach, A. Bickel[6] found that iodin and potassium iodid increased the amount of gastric juice, thus tending to produce hyperacidity. This was followed by an increased secretion of mucus, so that these agents, like alcohol and other irritants, are capable of producing a gastritis having the characters of acid gastritis. A similar action was produced by an albuminous compound containing iodin. Bickel proposes to use this experimental production of gastritis as a test to determine whether a preparation contains iodin in a therapeutically active form. If such a compound increases the acid and mucus of the stomach experimentally it may be assumed that it will exhibit the therapeutic properties of iodids in the organism.

Colic and diarrhea are frequent symptoms of acute iodin poisoning. Vomiting may occur. The inflammation of the gastro-intestinal tract is seldom severe, and if it is not, large doses do slight harm. In spite of the active symptoms produced, iodin poisoning is seldom fatal. This result is averted by the conversion of the element into compounds which are non-irritating and readily eliminated. In cases in which absorption has already taken place the gastric and intestinal symptoms of iodism are usually lacking or very slight. In small doses suitably diluted the gastro-intestinal irritation is not noticeable, and the remedy is often used for symptoms of irritation of the stomach, such as vomiting, gastralgia, etc. It has been prescribed along with phenol for the treatment of typhoid fever, probably on the supposition that it would exert an antiseptic action, but such an action in the alkaline contents of the intestine is very unlikely, if not impossible.

The action of iodin on the internal organs is also that of an irritant and when marked is shown by rapid pulse, flushing of the surface, increase of temperature, tremor, dizziness, and general weakness. Iodin introduced into the circulation takes the form of an iodid or of an organic iodin compound. It is removed from the circulation by the cells in general and especially by the cells of the thyroid gland. The varying capacity of the cells to take up iodin leads to a varying distribution of the element in the various tissues. The amount deposited depends not only on the character of the tissue, but also on the nature of the compound in which the iodin is introduced.

4. Kellermann: Ztschr. f. exper. Path. u. Therap., 1905, ii, 416.
5. Himmelsheber: Centralbl. f. Gynäk., Aug. 28, 1909.
6. Bickel, A.: Klin.-therap. Wchnschr., 1907, xiv, 1255.

Labbé, Lortat-Jacob, and Boulaire[7] conclude, from experiments to determine the coefficient of accumulation of iodin in the various organs, that the element has a great affinity for lymphoid tissue. It was deposited most abundantly in the spleen and lymph glands and next in the liver, which contains lymphoid tissue. Iodin, iodids and iothion cause the greatest accumulation in the lymphoid tissue while the fatty compounds leave very little. Loeb found the brain, spinal cord, bones, and fat free from iodin after the administration of potassium iodid, but found in the blood and liver, after removal of soluble iodin, a small quantity which was probably in the form of an organic compound. When iodoform, iodanilin, and ethyl iodid were administered, a considerable amount of iodin was found in the fatty tissue. It would seem that the presence of the iodin in an organic combination makes it possible for certain tissues to absorb it that cannot take it from the inorganic forms.

In the thyroid iodin is stored in the form of a colloid, not in the cell, but in the intercellular spaces. That the amount of iodin which can be stored in the thyroid is greater than that which is taken up by other organs is well demonstrated. This is not accounted for by the colloid character of the thyroid secretion, for other colloids, like that of the hypophysis or pituitary gland, do not contain an especial amount of iodin. The thyroid appears to act as a detoxicating organ to remove irritating poisons from the blood and to store them in its tissues. That the substance removed is not always iodin appears from the fact the colloid is frequently secreted by the thyroid cells without containing any iodin. In these cases it may be that the gland has removed other irritating substances by combining them with the colloid and storing them in the intercellular spaces. However, this may be, the removal of iodin from the circulation by this means is a most interesting phenomenon. If we look on this production of iodin-containing colloid by the thyroid as a detoxicating process, it will be readily understood that marked effects from the ingestion of iodin occur only when the iodin is present in the blood in such quantity that the thyroid cannot remove it fast enough to prevent toxic effects, or when the thyroid has already exhausted itself in the production of colloid and small quantities of iodid pass constantly into the blood either from the colloid secretion stored up in the thyroid or from other sources. The colloid, once deposited, appears to remain until it is taken up by the same cells which produced it and returned to the blood. Experiments by Carlson[8] show that the colloid is not taken up by the lymph which contains no iodin. When this introduction of iodin from the colloid into the blood takes place in normal amounts it may perform a useful function in metabolism; if the amount thus set free is excessive, symptoms of iodism appear which seem to be identical with hyperthyroidism. Whether the iodin produces these effects as an organic compound with protein or whether a decomposition of the protein must first take place so that the iodin becomes free or, at least ionic, is not determined.

That iodin released from the thyroid proteid may act as an immunizer against other poisons is shown by the experiments of Reid Hunt[9] with acetonitrile. This

7. Boulaire: Compt. rend Soc. de biol., Paris, 1906, lxi, 306.
8. Carlson: Am. Jour. Physiol., xxvi, No. 1.
9. Hunt, Reid: The Probable Demonstration of Thyroid Secretion in the Blood in Exophthalmic Goiter, THE JOURNAL A. M. A., July 20, 1907, p. 240; The Relation of Iodin to the Thyroid Gland, Ibid., Oct. 12, 1907, p. 1323.

observer found that mice treated with thyroid extract containing iodin would survive a dose of aceto-nitrile from one-half to twice larger than that which was fatal to control mice. The protective power was shown to be nearly proportional to the iodin content of the thyroid extract. Hunt also found that iodids and other compounds of iodin afforded a similar protection, although not to the same degree. It is probable, therefore, that iodin plays an important rôle in the control of nutrition and metabolism by the thyroid gland and that the gland may act both as a moderator and as a stimulant of metabolic activities, according as it removes iodin or other irritants from the blood and stores them in its tissues, or returns them to the blood when needed. Iodin is eliminated by various emunctories, among which the kidneys are of prime importance. The elimination through the kidneys may lead to such irritation of these organs that a nephritis may be set up, which contributes in no small measure to the injurious effects and rare fatal issue of iodin poisoning.

Elimination by the respiratory tract gives rise to some of the most characteristic symptoms of iodism. Salivation is a common symptom. Coryza and more serious inflammation of the nasal mucous membrane may ensue. The irritation of the bronchial mucosa may lead to hoarseness, cough, asthmatic symptoms, etc. These forms of respiratory irritation are easily elicited by the iodids when they produce no especial general or gastro-intestinal symptoms, because on the surface of the respiratory mucosa decomposition with liberation of free iodin most readily occurs. The increase of secretion in the bronchi under the influence of iodids has been made use of as a diagnostic measure to secure the presence of tubercle bacilli in the sputum or by causing the production of râles in the neighborhood of tuberculous foci to facilitate their recognition by auscultation.

Irritation of the skin results in the production of various eruptions such as erythema, acne, bullæ, which may suppurate, and ulcerations. The acne of iodism is likely to result in pustules which may be quite troublesome. The acne has been attributed to a derangement of the circulation in the superficial areas of the skin. F. Schidachi[10] reports 5 cases of erythema nodosum from the use of iodids and discusses some interesting questions in this connection. The suggestion that such eruptions are connected with kidney lesions received no confirmation from these cases, as albuminuria occurred in only one case. The theory that the eruption was due to imperfect elimination of the iodid could not be maintained as quantitative determinations of the iodin excreted showed that the intensity of the eruption did not in any way correspond to a lessened elimination by the kidneys. The lesion seemed to be due to a disturbance of the circulation similar to that supposed to cause acne, but affecting the deep instead of the superficial blood-vessels. Why there should be a difference in the vessels affected in various cases is not explained.

PHYSIOLOGIC ACTION OF THE IODIDS

The iodids are, as has been said, mostly soluble, dialyzable, and easily ionizable salts which are eminently fitted to produce a slow but profound effect on the changes going on in the cells. Under their influence cells waste and the more lowly organized the tissue, the more readily is it affected, so that fibrous tissue is especially likely to be softened and removed during the action of the iodids. In their internal activity the iodids repeat the actions of free iodin, causing the symptoms of iodism when they are administered in large doses. Their rapid elimination and the probable transformation into a colloid form prevent a marked development of this action so that the acute manifestations of iodism are seldom noticed in the administration of the iodids and then usually only for a short time. Iodids give important assistance in the elimination of metallic poisons, particularly lead, mercury, and arsenic. The explanation of this action is not positively known. It is believed that the iodid acts by producing a soluble salt of the metal, but it seems quite as likely that the iodid may release the metals by breaking up proteid compounds which they may have formed. A similar action may explain the increase of elimination of toxins under their influence.

The action of iodids on the circulation has been much studied but it is not certain whether they possess any marked action on the arterioles or not. It has been claimed that they lower blood-pressure, but some of the experiments seem to indicate that the first effect is that of an irritant to the vessel walls, causing contraction of the arterioles and a consequent temporary rise of blood-pressure, and that they develop their influence in lowering blood-pressure only by their action on the fibrous tissue of the blood-vessels, by which they diminish arteriosclerosis and eventually lessen arterial tension. However a lowered arterial tension is a prominent feature of hyperthyroidism and would seem to indicate a similar action on the part of the iodids.

Loeb[11] found that the use of iodin preparations by injection did not hinder the degeneration of the aorta produced in rabbits by injections of adrenalin, but very large doses increased the extent of the lesion. On the other hand, Martinet[12] attributes the good effect of iodids on arteriosclerosis to three factors: 1. They lessen arterial tension to a certain extent and relieve the heart. 2. They act as lymphagogues; they lessen edema although at first they increase it. 3. They are useful by their action on nutrition.

Iodids are useful in asthma, but the mechanism of this action is unknown. They are good expectorants because being excreted by the bronchial mucous membrane, they tend to liquefy secretions and to promote the expulsion of the sputum. A similar explanation will suffice for their favorable action in coryza and nasal catarrh.

IODISM

The occurrence of iodism during the administration of iodids suggests the following important questions: 1. To what is iodism due? 2. What circumstances favor its onset? 3. Is iodism necessary to the therapeutic action of iodids?

According to A. Djelogolowy[13] iodism is an iodin intoxication which may have more than one cause and is to be attributed to the setting free of nascent iodin by the action of some oxidizing agent on the iodids. This oxidation may take place in the stomach or after absorption into the blood or after the iodid is eliminated on a surface exposed to the air like the respiratory mucous membrane. Djelogolowy concludes that in certain individuals the conditions in the stomach are especially favorable to the spitting off of free iodin and the production of an iodin intoxication. In these individuals the acidity of the gastric juice is high and the stomach contents contain nitrous acid produced from nitrites derived from the saliva or from the food. The nitrous

10. Schidachi, F.: Med. Klinik, 1907, iii, 169.

11. Loeb: Deutsch. med. Wchnschr., 1907, xxxiii, 382.
12. Martinet: Presse méd., Paris, 1906, xiv, 351.
13. Djelogolowy, A.: Arch. f. Verdauungskr., x, No. 3.

acid sets free iodin from iodids when given as medicine. This theory affords a useful hint as to the giving of iodids, viz., to give with them something to neutralize the excess of acid in the stomach. The ordinary precaution to administer them in milk is seen, therefore, to be based on sound principles. The protein of the milk tends to neutralize the excess of acid in the stomach and thus to prevent the action of nitrites on the iodid. Probably the administration of alkalies would afford a like security. Djelogolowy finds that the amount of nitrites in the stomach contents varies with the abnormal secretion relations. On the amount of nitrites depends the amount of iodin split off and to a corresponding extent the sensitiveness of the patient to iodin preparations. The setting free of iodin and the presence of nitrites are constant symptoms presented by the patient in whom they are found, for they are always found on repeated examinations with unimportant variations.

Not less important in this connection are the views promulgated by Erlenmeyer and Stern,[14] who, in discussing the use of iodin in arteriosclerosis, conclude that iodism is a necessary accompaniment of the therapeutic action of the iodids. They regard the action of iodin as essentially the action of the iodid ion, and hence think that it cannot be exhibited unless the iodin is in the ionic form. It can be obtained only from such preparations of iodin as dissociate in the system. Of these the iodids of the alkali metals are the most powerful. Iodism is an unavoidable side-action of the activity of the iodid ion. Its intensity is to be moderated, but the occurrence of iodism is neither to be dreaded nor to be entirely suppressed by antagonistic agents. If the views of these authors are correct, the administration of iodids should be conducted with the definite aim of developing a mild form of iodism with as small doses as possible. In the opinion of Erlenmeyer and Stern organic compounds of iodin are therapeutically efficient only on condition of their splitting off iodin in the body so that such compounds can be only somewhat uncertain substitutes for potassium or sodium iodid. If we can guard the stomach from the injurious action of iodin it would seem that potassium iodid is still the best salt to develop the therapeutic activities of iodin.

While we must leave a number of theoretical questions unsolved the preceding discussion suggests the following practical problems worthy the attention of clinicians and pharmacists. Since the liberation of iodin appears to be the cause of the untoward effects of iodin and the iodids what means can be taken to avoid this occurrence or to restrain it within moderate limits? This is a problem to the solution of which the knowledge of the pharmacist may bring valuable aid.

Again what is the proper treatment of this condition when once produced? In answering this question pharmacy and toxicology should come to the aid of practical medicine.

Lastly, if this condition in a mild degree is the indispensable condition of therapeutic efficacy from the iodids, pharmacologists ought to find some way to evoke it in the system without allowing it to go too far and should teach us how to avoid the injurious action of the remedy on the gastro-intestinal tract and the excretory organs.

I shall not attempt to discuss these questions, but will leave them to the reader in the hope that some substantial contribution to their solution may be presented.

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14. Erlenmeyer and Stern: Klin.-Therap. Monatsh., March, 1909.

THE EXPERIMENTAL PRODUCTION OF SECONDARY UNION BETWEEN NORMAL AND CARCINOMATOUS EPITHELIUM—PSEUDO-METAPLASIA*

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In the never-ceasing discussion on the origin of cancer, much attention has always been given to that continuity between normal and carcinomatous epithelium which is so frequently observed at the edges of tumors. Many pathologists hold that the transition here noted is evidence at once of the primary seat of the growth and of its manner of origin. Certainly this evidence would seem strong, and those who do not accept it are few. Ribbert has long held that a secondary union really explains such pictures, and Borrman,[1] his pupil, has collected many specimens which histologically further this view. Experimental evidence for it, however, has been lacking.

In the course of a comparison of the conditions regulating the growth of transplanted tumor and a transplanted normal tissue[2] I have examined many grafts in which mixed tumor and embryonic tissue have grown intimately together in the new host. A few of these have shown microscopically an undoubted union between the carcinomatous and the embryonic epithelium, especially that of the skin (which, on its growth in the new host, tends to assume the mature form). Mouse tumor, adenomatous or alveolar in character, and hashed mouse embryos, 1.0 to 1.6 cm. in length, have been used. The tumor is easily recognizable in such a mixed graft. The union of it with the normal epithelium is seen most often where tongues of the two, growing in opposite directions along a rift in the injected mass, have met. In some cases a real fusion does not take place, and where the tissues have come in contact they remain sharply distinguishable, although no fribril or free space separates them. In other instances there occurs such an intermingling of cells at the meeting-point that with the microscope it is impossible to determine exactly where normal epithelium ceases and carcinomatous begins. Indeed, on histologic evidence alone, it would be said that here was a metaplasia. The possibility that in these instances one may be dealing, not with tumor tissue at all, but with a junction between skin and skin appendages, can be excluded.

The fact thus experimentally brought out that normal and carcinomatous epithelium may secondarily unite probably explains only a part of the recorded cases in which a continuity between the two has been observed. It does not prove that such a continuity may not often be primary. But it should lead to more caution in the acceptance of pictures at the edge of a growth as evidence for the growth's point of origin, or for its having arisen by a metaplasia. At the edge of an ulcerating epithelioma, for example, where the skin epithelium is making attempt at repair, and the tumor tissue is extending toward it, there must occur many opportunities for a secondary fusion of the two, such as has been here reported.

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* From the Laboratories of the Rockefeller Institute for Medical Research.

1. Borrman, R.: Ztschr. f. Krebsforsch., 1904, ii, 1.
2. Rous, Peyton: Jour. Exper. Med., 1910, xii, 344.

THE EXCRETION OF HEXAMETHYLENAMIN IN THE SALIVA*

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The excretion of hexamethylenamin in the urine was reported by Nicolaier[1] in 1899. The favorable results obtained from its use as a urinary antiseptic created an interest in its mode of excretion by other channels. Crowe[2] has reported its excretion in the bile, pancreatic juice, cerebrospinal fluid, synovial fluid, and in the saliva and milk of dogs, and has used the drug as a prophylactic and therapeutic agent in meningitis, but particularly in gall-bladder disease due to gall-stones complicated with *Bacillus typhosus*. The excretion of hexamethylenamin in human milk has also been observed.[3]

Recently W. M. Barton[4] and E. J. Brown[5] have reported the use of hexamethylenamin in the treatment of otitis media and suppuration of the right antrum. The possibilities of treatment of meningitis complicated with otitis media and infections of the sinuses were suggested in Crowe's work. In Barton's case the excretion of the hexamethylenamin by the mucous membrane was shown by the chemical test. In Brown's cases no attempt was made to detect the appearance of the drug in the secretions.

The mode of excretion of hexamethylenamin as such or as formaldehyd plays an important part in the estimation of its value as an antiseptic. In the urine it has been observed that at least a part of it appears as formaldehyd if the urine is not voided too frequently. Sollmann[6] has shown that a considerable part (if not all) of hexamethylenamin is excreted unchanged in the urine, but when the urine was retained in the bladder for one and a half hours, it showed a slight trace of free formaldehyd. Imitations, outside the body, of the conditions of the urine in the bladder gave practically the same effect as to the rate of decomposition of hexamethylenamin. These results show, therefore, that the conditions of the body and urine favor the decomposition of hexamethylenamin into formaldehyd when taken internally, although the process goes on very slowly. As to the excretion of free formaldehyd in the bile, pancreatic juice, milk, blood, and cerebrospinal fluid after the internal administration of hexamethylenamin no data are as yet available. The tests which were applied for the detection of the drug in these fluids apply to free formaldehyd or formaldehyd liberated by the catalytic action of sulphuric acid on hexamethylenamin.

About a year ago Professor Sollmann suggested that I investigate whether hexamethylenamin is excreted by the human saliva, either free or as formaldehyd. So far only two experiments have been made, but since these gave identical results, a preliminary communication may now be in place. A normal subject took by mouth in gelatin capsules, respectively, 0.6 and 0.3 gm., hexamethylenamin, and the saliva was collected and the following tests applied every fifteen minutes for at least one hour:

For hexamethylenamin direct, the bromin test was used, the saliva being previously boiled with a few drops of dilute acetic acid to remove the troublesome mucin and then filtered. The phloroglucin test was applied for the detection of free formaldehyd; the phenol and salicylic acid tests were also used. Checks, with the same test, were made on the same saliva before the drug was taken.

EXPERIMENT 1.—One-half hour before the drug was taken, the saliva was negative to all tests; on the addition to it of hexamethylenamin it gave positive results with all tests, while the formaldehyd test was negative. At 9 o'clock 0.3 gm. hexamethylenamin was taken. Samples tested with bromin water gave results as follows: Fifteen minutes later, cloudiness; thirty minutes later, a precipitate; forty-five minutes later, a small precipitate; sixty minutes later, a faint cloudiness. The salicylic acid and phenol tests gave corresponding results but in sixty minutes the phenol test was entirely negative. No free formaldehyd was found at any time.

EXPERIMENT 2.—One-half hour before taking the drug, saliva was negative to all tests; on adding to it hexamethylenamin it gave positive results with all tests, but the formaldehyd test was negative. At 8:50, 0.6 gm. hexamethylenamin was taken. Samples tested with bromin water fifteen minutes later gave a cloudiness; thirty minutes later, a precipitate; forty-five minutes later, a small precipitate; sixty minutes later, very cloudy; seventy-five minutes later, faintly cloudy. The salicylic and phenol tests gave corresponding results. No free formaldehyd was found at any time.

SUMMARY

The above experiments indicate that hexamethylenamin is excreted unchanged in the saliva. The greatest amount of the drug seemed to be excreted during the first thirty minutes after its administration. This is indicated by the character of our precipitates with bromin water and the color reactions obtained with the other tests. It is also in accordance with Crowe's observation on its rate of excretion in the cerebrospinal fluid, bile and pancreatic juice, and in the urine as noted by Sollmann.

I have not yet investigated whether the excretion of hexamethylenamin in the saliva has any antiseptic value. The absence of free formaldehyd makes this rather improbable. It must be remembered that the conditions in the saliva are quite different from those in the urine, bile, or cerebrospinal fluid. It is known that the liberation of formaldehyd is a very slow process. The stagnation of these fluids in the body would probably give time for this process to occur; but in the case of saliva, there is no stagnation and consequently it is rather improbable that any effective quantity of formaldehyd could ever be liberated.

LOCAL ANESTHESIA WITH QUININ AND UREA HYDROCHLORID

REPORT OF FOUR CASES*

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Through the courtesy of Dr. Bolling, I have had opportunity to use as a local anesthetic quinin and urea hydrochlorid in four selected cases. The preparation was supplied for experimental purposes only in 5 c.c. ampoules of a sterilized 1 per cent. aqueous solution.

CASE 1.—A woman, aged 21, presented a fissure with sentinel pile in the right posterior anal quadrant. A 1 per cent. solution (50 minims) was injected and as shown by repeated tests with the needle it was necessary to distend the tissues before

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* From the Pharmacological Laboratory of Western Reserve University.

1. Nicolaier: Deutsch. Arch. f. klin. Med., 1899, xxxviii.
2. Crowe: Bull. Johns Hopkins Hosp., 1908, xix, 109; 1909, xx, 102.
3. Bucura: Ztschr. exper. Path. u. Therap., 1907, iv, 308.
4. Barton, W. M.: The Elimination of Hexamethylenamin by the Mucous Membrane of the Middle Ear, THE JOURNAL A. M. A., March 12, 1910, liv, 871.
5. Brown, E. J.: Hexamethylenamin in Suppuration of the Middle Ear and the Nasal Sinuses, THE JOURNAL A. M. A., April 16, 1910, liv, 1308.
6. Sollmann, T.: Formaldehyde Derivatives, THE JOURNAL A. M. A., Sept. 5, 1908, li, 818.

*Read before the Louisville Society of Medicine, May 5, 1910.

complete anesthesia could be obtained. It was also necessary because of a short needle to make several punctures, and it required twenty-three minutes to obtain complete anesthesia. Induration became manifest in about ten minutes and continued until the twelfth day. Some capillary bleeding, though very slight, followed the extirpation of the hemorrhoid and the incision of the fissure, which latter extended about one-half inch up the anal canal and to the depth of about one-fourth inch above and one-half inch below. There were no apparent general symptoms from the anesthetic, though the patient complained much of headache, which grew steadily worse, until the completion of the operation, and which most likely was due to fright. Before applying the dressings examination revealed a zone of hyperesthesia (to touch, not pain) extending about one-half inch from the injected area on all sides. The process of healing was uninterrupted by complications and lasted about two weeks. The anesthesia diminished until the ninth day, and normal sensation was apparently restored on the twelfth day. Throughout the healing process the surface of the wound presented a pale, grayish appearance and bled slightly on manipulation.

CASE 2.—A man, married, aged 42, presented a thrombotic pile in the posterior median line about the size of a hazelnut, which was inflamed and had existed a week. The entire mass was extirpated under a 1 per cent. solution of quinin and urea hydrochlorid, 45 minims being required: Distention was necessary and anesthesia was complete in seven minutes. There was slight capillary oozing and two small vessels spurted, one of which was tied. Slight induration was noticeable about one hour after the injection, but apparently disappeared by the fifth day. Much pain was caused by the introduction of the needle and there was no hyperesthesia to touch. No general symptoms were present. Anesthesia continued in a modified degree, until the fourth day, after which there was apparently more than usual pain and tenderness throughout the remaining time of granulation. There was also, during this time, a tendency to capillary bleeding, at the times of dressing and with the movements of the bowel. The granulating area presented a pale grayish appearance.

CASE 3.—The patient was a woman aged 40, married; diagnosis, external hypertrophic hemorrhoid, situated in the anterior median line. A 1 per cent. solution of the anesthetic (80 minims) was almost painlessly injected into the tissues, with two introductions of the needle. It was necessary to distend the tissues and anesthesia was complete in ten minutes. There were no general symptoms. The mass was extirpated and two small arteries spurted, and were caught with hemostats, but not tied. There was slight capillary oozing, though sharp bleeding came later from one vessel and continued for about three hours. Twenty minutes after the operation there was smarting pain which lasted four or five hours. After the pain subsided the wounded surfaces seemed incompletely anesthetized for about twenty-four hours. There was apparently no induration and hyperesthesia was not noticeable. During the process of repair the wounded surface was pale, and there was considerable pain with the movement of the bowel on manipulation of the parts, while walking or maintaining the erect posture. There was slight tendency to bleed even with the movement of the bowel. The wound healed in three weeks leaving a slight scar.

CASE 4.—Female, aged 20, single. Prolapsing internal hemorrhoid, situated in the right anterior quadrant, about the size of a hazelnut. A 1 per cent. solution of quinin and urea hydrochlorid (55 minims) was injected without pain, the tissues were distended and anesthesia followed in four minutes. Induration appeared in about ten minutes and was apparent for ten days. Hyperesthesia was noticeable for about twelve days, extending over the anal canal and lower rectum. The primary incision at the base of the tumor made preparatory to applying the ligature, was followed by only slight capillary oozing. There were no general symptoms. The ligature came away on the fifth day and the entire granulating area presented a whitish appearance with little tendency to bleed. Anesthesia seemed complete for seven days and normal sensation was restored about the eighth day.

RECAPITULATION

1. Diagnosis: First case, fissure; second case, thrombotic external hemorrhoid; third case, hypertrophic external hemorrhoid; fourth case, internal hemorrhoid.
2. Solution 1 per cent. quinin and urea hydrochlorid.
3. Amount of solution used, 45 to 80 minims.
4. Distention necessary in all cases.
5. Anesthesia more or less complete; it began in a few minutes (varying from four to twenty-three), and lasted from twenty-four hours to nine days.
6. Bleeding: Capillary much reduced, arterial and venous not controlled; possibly reduced.
7. Induration in three cases appeared in ten minutes to one hour; continued from five to twelve days.
8. Normal sensation restored in twenty-four hours to twelve days, apparently.
9. General symptoms absent (in all cases).
10. As indicated the fibrinous exudate seemed absorbed in from five to twelve days.
11. Hyperesthesia for sensation present in two cases. In one hemorrhoidal case it lasted twelve days.

607 Second Street.

PELLAGRA COMPLICATING A LAPAROTOMY

RAYMOND C. TURCK, M.D.
JACKSONVILLE, FLA.

Patient.—A white woman, aged 30, born and raised in South Florida; married, and having one child aged 3. When I first saw her in December, 1908, she had had a menorrhagia for six weeks, the flow being irregularly profuse, but without pain. The patient was badly nourished, almost emaciated. Although very weak she was able to move about the room. She was markedly melancholic, or rather in varying stages of hysteromelancholia, with occasional suicidal tendencies. There was no rise of temperature or pulse and there were no definite points of pain or tenderness. She gave a history of having had dysmenorrhea for years, and of having temporarily lost her mind twice.

Examination.—I found a relaxed vaginal outlet, uterus in extreme retroflexion, marked endometritis, with both ovaries enlarged and tender. At times she talked rationally and gave me a fairly clear history of her troubles. There was no apparent loss of sense perception; the knee-jerk was slightly exaggerated; Babinski was not present; pupils reacted to both light and accommodation. The patient complained of indigestion, apparently both gastric and intestinal, and stated that she was usually constipated, but had an occasional diarrhea. Examination of the urine gave strong reaction for both indican and indol-acetic acid, but no evidence of kidney lesion. Blood examination showed secondary anemia, with many microcytes and megalocytes. The differential leucocyte count gave 66 per cent. polynuclears, 28 per cent. lymphocytes, 2 per cent. eosinophils, and 4 per cent. transitionals. At this time it appeared that the mental and constitutional symptoms were secondary to the pelvic disorders and to an intestinal autotoxemia.

Treatment and Course of Disease.—Intrauterine douches controlled the menorrhagia without difficulty. The patient was put on supportive and nourishing treatment to prepare her for operation. She was treated from Jan. 8 to Jan. 21, 1909, without much improvement, except a rise in hemoglobin to 95 per cent. Operation was performed at DeSoto Sanatorium under ether anesthesia. The uterus was curetted and a median abdominal incision made. I removed one subperitoneal uterine fibroid, did a ventrosuspension, and resected both ovaries, which were fibrous and cystic. The patient recovered nicely from the operation and the wound healed kindly. For the first few days following the operation she seemed in much better spirits and her mind was apparently clear. Following this she gradually became more and more melancholic, and after leaving the hospital lapsed gradually into a state of dementia. At this time the gastrointestinal disturbances became marked; diarrhea was more or less constant. The tongue was swollen and red, in the fifth or sixth week after operation becoming

black and completely filling the mouth. During the last week there was a continued flow of offensive saliva from the mouth. When I first saw the patient she had on the backs of the hands and on the extensor surfaces of the forearms small dry scaly patches resembling a mild psoriasis. I gave this no thought at the time.

Within two weeks after operation, however, these patches increased in extent and on parts of the arms, back and chest there was a condition resembling in places a dry eczema, and in others an erythema. The patient gradually lost strength and flesh. Her insanity became violent and she died six weeks after operation in a state of acute mania.

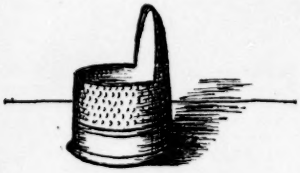
It was not until after the death of the patient and after reading Dr. J. H. Randolph's paper on pellagra[1] that it occurred to me that this case was undoubtedly pellagrous.

The interesting feature of the case, if any, lies in the apparent rapid development of pellagrous symptoms after the anesthetic and operative work.

A SIMPLE TONSILLOTOME

JOHN P. DOUGHERTY, A.M., M.D.
SIOUX CITY, IOWA

This little device may be of interest to those who remove the tonsil by means of the finger-nail, or to those who avoid the finger-nail method, solely from fear of the resultant trauma. It is in principle merely a very strong finger-nail, which can be made as sharp as desired and freely modified as to shape and length. A simple way of making it is to take an ordinary thimble of a size which loosely fits the middle finger, and which is, therefore, very loose for the index-finger on which it is to be used. A hole is filed in the top of the thimble and this enlarged until, with the exception of a lateral pro-



A simple tonsillotome.

jection about the size and shape of a finger-nail, about half the thimble has been cut away. This projection, both at its tip and at its base, should be rather narrower than the finger-nail, and should not include any part of the top of the thimble, as this might interfere with the tactile capacity of the index-finger when thrust into and partly through the instrument. If the instrument be made but slightly sharper than the finger-nail, the tonsil can be removed neatly, quickly and without trauma, and at the same time the danger of cutting adjacent structures is largely obviated. A narrow piece of gauze or tape must be threaded through the instrument to facilitate its recovery in case it slips from the finger.

In other than the tonsillar region it may also prove a useful adjuvant to finger-nail dissection, and in some cases may be used in place of a scalpel or scissors.

1. Randolph, J. H.: Notes on Pellagra and Pellagrins, Arch. Int. Med., January, 1909, p. 553.

POPLITEAL ANEURISM SUCCESSFULLY OPERATED ON BY MATAS' METHOD

GEORGE P. HAMNER, M.D.
LYNCHBURG, VA.

Patient.—P. E., negro, male, married, aged 52, gave negative history of syphilis and tuberculosis, though he had a number of suspicious old scars on legs; probably syphilitic. He felt a dull, aching sensation in the left popliteal space a few days after stepping into a post-hole and falling backward with all the weight of his body thrown on the leg behind the knee. Aching and pain continued to grow worse until, two months after the injury, on January 7, I was called in and found the patient suffering considerably and complaining of pain in the left popliteal space, which showed a plainly visible and palpable pulsating tumor about the size of a lemon, making the diagnosis of aneurism unquestionable. The patient was put on potassium iodid grs. x t. i. d. with an increase of one grain daily while the advisability of waiting longer before operation to insure sufficient endothelial lining of the sac was under consideration. On the above treatment the pain soon disappeared and the patient seemed to improve for a time. I saw him at intervals of three or four days, and he remained very comfortable until January 31, when I was called rather hurriedly and found the patient in great pain. The tumor had suddenly increased very much in size, being now about the size of a large orange and hard and tense with pulsation not visible, and only felt slightly on deep pressure, which caused the patient to cry out with pain. The leg below the knee did not look well at all and was beginning to feel much cooler than the other, showing the effects of the pressure on the circulation. Immediate operation was advised.

Operation (February 1).—An Esmarch bandage and tourniquet were applied from the toes to the junction of the lower and middle third of the thigh, and after the tourniquet was made fast the bandage was removed and a free incision made through the skin. The sac was encountered just beneath the skin and was so thin and necrotic in character that portions of the clot protruded. The clot was turned out and the sac washed, the latter being in such a necrotic condition that the greater part of it had to be dissected out. The main trunk of the artery was located just posterior to the sac and after some little search the distal and proximal openings were found about one and one-half inches apart. It was clearly a saccular aneurism, with no collateral openings and occupied the middle third of the popliteal artery. My first intention was, of course, to do a restorative endo-aneurismorrhaphy but the sac was so friable, as to make this unsafe, so I had to resort to obliterative endo-aneurismorrhaphy, closing the openings with several tiers of sutures. I first tried to suture with fine silk but it did not stand tying well and showed a tendency to cut out. The suturing was, however, successfully done with No. 2 iodized catgut, and when the tourniquet was loosened only a small amount of venous ooze took place, which readily yielded to hot compresses. The wound was then closed, muscles, fasciæ and skin, but as the fat, which normally occupies this space, had all disappeared a small dead space was necessarily left.

Post-operative History.—The patient was taken from the table in good condition and the leg bandaged with warm cotton and hot-water bags applied. In about two hours he had reacted and the leg operated on was as warm as the other, a condition which had not existed for some days before the operation. With the exception of a temperature of 100 F. on the second day the patient appeared normal in every way until the seventh day. The dressings were taken off on the fifth day and showed a firm primary union. On the seventh day after the operation the temperature was again 100 F. The wound was again examined and showed a clean dry union. The cause of the temperature was rather puzzling until the ninth day, when pus was discovered oozing from under the edges of the bandages. This time when the dressings were removed pus was flowing freely through two small openings in the skin from deep pockets, one just behind the joint and another higher up the thigh. These pockets resulted from the dead space left when the opening was closed. They were irrigated with a

1 to 1,000 bichlorid solution and hydrogen dioxid and packed with iodoform gauze. In twenty-four hours the temperature had returned to normal, and in three or four days the small wounds were covered with healthy granulations. They were kept clean with the antiseptics and packed to the bottom and gave no further trouble. At the end of the third week the patient was taken to his home and in another week, four weeks from the date of the operation, he was able to get about on a crutch. He has been at work for about a week at his usual occupation, that of driving a two-horse dray.

I learned two things from this, my first experience with this operation: First, that it is much better to operate early in such cases, while the tumor is pulsating, than to wait until a clot forms with the resulting damage from pressure, as in this case; and second, that the resulting dead space should never be closed without proper drainage. I think that a small cigarette drain in the wound would have obviated the trouble I had with suppuration in the sac.

1016½ Church Street.

THE AUTOLYSIS OF PNEUMOCOCCI AND THE EFFECT OF THE INJECTION OF AUTOLYZED PNEUMOCOCCI*

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CHICAGO

Pneumococci when suspended in sodium chlorid solution disintegrate and become Gram-negative. The greater the virulence the more rapid the destruction. Non-virulent pneumococci often resist disintegration unless chloroform is added. This process has been proven to be a true autolysis and not due to the action of sodium chlorid in the solution, or to the solubility of the protoplasm of the pneumococcus in water. Several years ago it was shown that the autolytic extract of highly virulent pneumococci in sodium chlorid contained an antiopsonic substance. Similar results have been obtained repeatedly since.

Further studies of the soluble substances and the autolyzed pneumococci are in progress and the following preliminary statements can be made. It seems that by means of autolysis it is possible to separate at least to a large degree the toxic from the non-toxic or antigenic parts of the pneumococcus. The part which goes into solution is the toxic portion. It causes peritonitis and leucocytosis in animals, marked local reaction, leucocytosis, and some fever when injected subcutaneously in man. The opsonic curve shows only a slight rise. It is impossible to immunize animals to any marked degree by repeated injections. Intravenous injections into rabbits may prove fatal.

The injection of the non-toxic and as it appears, the antigenic portion—the autolyzed pneumococci—on the other hand, causes practically no local reaction, only slight increase in the number of leucocytes, but a marked increase in the immunity curve as measured by the specific increase in pneumococco-opsonin.

The usual negative phase is absent. From a number of tests it appears clear that the simultaneous injection of the toxic part interferes to a marked degree with the immunity curve produced by the non-toxic portion.

The injection of autolyzed pneumococci into twenty-five patients with lobar pneumonia seems to show that we have in this material a valuable aid in the treatment of this disease. In two cases of pneumococcus empyemia it seemed to have a marked beneficial effect. Further tests will, of course, be necessary to prove this point. However, it would seem from the evidence at hand that we can by this means stimulate the formation of antibodies at an earlier period than occurs naturally by the infecting pneumococcus.

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* From the Memorial Institute for Infectious Diseases and the Dane Billings Fellowship in Medicine, Rush Medical College, Chicago.

Therapeutics

ULCERS OF THE LEG

In spite of the advance in methods and technic in most surgical lines, there is as yet no one orthodox method of treating an indolent ulcer of the leg. Physicians and surgeons differ in their methods of treating this condition, and all are more or less successful. The difficulty is to select the particular treatment that is best adapted to the particular kind of ulcer in a leg with a particular condition of the circulation, at a particular age of the patient, with the particular kind of work that he must do. It is self-evident that for the successful treatment of ulcer of the leg all of the above items must be taken into careful consideration before the best treatment for the individual patient can be decided on.

There are certain principles of treatment which must be observed, but which may be carried out in different ways, while there are certain indications, which, in many instances, cannot be carried out. Under these circumstances the obstacles to success are greatly increased, and the good effect of rational therapeutic procedures is greatly impaired, and a considerable prolongation of treatment is thereby rendered necessary.

When the physician undertakes to treat a case of ulcer of the leg, he must consider whether there is a syphilitic element in the case. This is especially likely to be found when the ulcers are multiple and affect both legs somewhat symmetrically. If there is reason to believe that a syphilitic taint is present constitutional treatment, with a mercurial, such as the yellow iodid of mercury (hydrargyrum iodidi flavum), in doses of 0.015 gram (¼ grain), three times a day, after meals, may be desirable. This may be followed after several weeks by the iodid of potassium in 0.30 to 0.60 gram (5 to 10 grain) doses, well diluted with water, half an hour after each meal.

Next, it must be considered what conditions exist remote from the local lesion which tend to perpetuate it. It will at once be found that most of these ulcers are associated with impaired circulation of the limb, which in many cases has resulted in a varicose condition of the superficial veins. This impairment of the circulation may be due to valvular or degenerative muscular disease of the heart, to impairment of the function of the kidneys, to tumors in the abdomen, and, by far the most frequently of all, to pregnancy. Other less frequent causes are an hereditary weakness of the vessels, especially the veins, hard work, especially lifting heavy weights, constriction of the limbs by garters, and sitting with the legs crossed. The defective circulation in the leg often causes edema of the connective or cellular tissue, and congestion of the skin, which may become a dermatitis or an eczema, accompanied by tormenting itching.

Obviously the most logical and the easiest way of combating this impaired or deficient circulation in the leg is to keep the patient in bed with the affected limb elevated. But most persons who suffer with ulcer of the leg must work every day, and cannot afford the time to go to bed and wait for the ulcer to heal; hence we must try to have the ulcer heal even under unfavorable conditions.

Other resources must be utilized in order to overcome the deficient circulation. If there is constipation, with edema and congestion of the skin, a saline laxative is likely to prove of advantage by depleting the vessels of the intestines or a vegetable laxative may be of value by stimulating the secretion of the liver and intestinal glands and so promoting elimination of toxic products which impair the circulation.

If there is valvular disease of the heart or weak action of the heart not dependent on advanced muscular degeneration, the tincture of digitalis in doses of 15 or 20 drops, three times a day will prove useful. This drug, however, should not be continued in this dose if the pulsations of the heart are reduced below 60 a minute.

If the peripheral vessels show signs of weakness, and are dilated, the fluidextract of ergot, in doses of 1 to 2 c.c. (15 to 30 minims), should be given, well diluted with water, three times a day, after meals.

If there is thickening of the tissues, of if the vessels show signs of commencing arterial sclerosis, the iodid of potassium or sodium should be given in 0.30 gram (5 grain) doses, well diluted with water, half an hour after meals. After a week one dose of iodid a day is sufficient.

If the urine is scanty, or highly acid, or contains much uric acid, an alkaline diuretic should be prescribed, such as the potassium citrate in 2.0 gram (30 grain) doses, in half a glass of water, after each meal.

If the ulcer is sluggish and heals slowly the solution of potassium arsenite (Fowler's solution) given in 5 drop doses, in water, three times a day, after meals, will sometimes prove beneficial. If anemia is present, iron must be prescribed.

Turning now from the constitutional and general treatment to the local treatment, it will be instructive to read the description given by Dr. Alfred J. Buka, of Pittsburg, Pa. (*Medical Record*, Oct. 9, 1909), of the method of treatment followed in one of the divisions of the Department of Charity and Correction of the City of New York, where during five months he actually handled and treated about 125 patients who had ulcer of the leg. Buka describes this method as follows: The ulcer was first made anesthetic with a 2 per cent. solution of cocain or betaeucain. The floor of the ulcer was then curetted so that all of the granulations were removed. Sometimes where the margins were deep, the floor of the ulcer was scarified, as well as the margin. If the bleeding was free, it was allowed to go on for a few minutes. "If the ulcer bed showed a tendency to tardy or poor granulations it was livened up by painting with iodin or by destruction of the granulations with lunar caustic, 50 per cent. silver nitrate, or pure carbolic acid, to be washed off with alcohol. After the treatment for exuberant or tardy granulations the ulcer area was treated with warm 1-2000 or 1-5000 bichlorid dressings. Sterile gauze pads (about 4-6 inches) were placed in the warm bichlorid solution, and after a free removal of the excess solution, they were placed on the ulcer. Rubber tissue was placed over the gauze and the part was bandaged with 3-inch gauze (not too tight). If the patient remained in the wards rubber tissue was not used and the bandage over the ulcerous area was kept wet with bichlorid solution. All patients were instructed about the importance of rest, elevation, and aeration. After forty-eight or seventy-two hours the patients presented themselves for examination either at the clinics or in the wards. Each patient had the same kind of dressing placed upon the ulcer again and internal medication was instituted. Fluid extract of ergot was administered, 7 to 15 minims, three times a day, and this remedy was to be continued indefinitely."

After two or three dressings of this character, repeated at intervals of forty-eight or seventy-two hours "the ulcer appeared as a bright red, freely bleeding area, and on closer examination small, pinhead granulations could be seen." At this time the character of the applications was changed, as further described by Buka: To stimulate healthy granulations "iodoform (for which there is no excuse in modern esthetic medicine), thymolis iodidum (aristol), or bismuth subgallate" are used. Also frequently combined with these dusting powders were acetanilid or acetphenetidinum (phenacetin). When there is eczema around the ulcer the powder was used freely in combination with salicylic acid. He does not state the strength. A simple, efficient, and antiseptic dusting powder, however, is as follows:

R.	Gm.	
Acidi salicyli	1	gr. xv
Acidi borici	49	or
Talci purificati	50	āā℥iss

M. et Sig.: Use externally.

Buka says that wherever it is possible to keep the area moistened with bichlorid 1-5000, it is done. This, of course, would prevent infection, but it would seem that such solutions long continued would tend to inhibit healing rather than promote it, and the continuous application of physiologic saline solution might be better.

If the eczema which was around the sore tended to spread more widely, tincture of iodin was painted about the outer healthy surface, or on the outer zone of eczema. Such applications were repeated occasionally, or until the patient complained no longer of itching at the margins of the ulcer. A salicylic acid powder also tends to prevent the itching. When the applications cause troublesome burning, Buka found that this disappeared after the second or third application, and the patient did not again complain of it. After from three to five dressings he found that healthy granulations would be present and the irritation from eczema would cease; this from the fourth to the sixth week, at which time an "opalescent film" would be found on the ulcer surface. At this stage ointments are used, *i. e.*, after the granulations are covered with a protective layer, the above-mentioned opalescent film. Sometimes the change from irritating powders to ointments was made earlier on account of the patients' complaining of the burning. It seems inadvisable to use an ointment which will promote the growth of bacteria, especially before the granular absorbent tissue has been protected from absorption; hence the object, after the sore is made sterile, of causing granulations to occur and then become protected from absorption by antiseptic powders. This at least is the object of this treatment. A 10 to 20 per cent. ichthyol ointment was used as both stimulating and healing. When ointments are used they should be

spread thickly over the ulcer. Ichthyol ointment may be made as follows:

R.	Gm.		
Ichthyol	10	or	3iii
Petrolati	ad 50		ad 3ii

M. et Sig.: Ichthyol ointment 20 per cent.

From this description certain definite principles of treatment may be deduced. First is the necessity for thoroughly cleansing the affected limb with antiseptic solutions. Those readily available and most generally useful are a hot solution of carbolic acid from 1 to 2½ per cent. (1-100 to 1-40), which is especially useful on account of its anesthetic properties, when there is considerable pain in the ulcer; solution of the corrosive chlorid of mercury, 1-1000 to 1-5000; and solution of dioxid of hydrogen in full strength or diluted with 2 to 4 parts of water. The weaker solutions of carbolic acid and corrosive chlorid of mercury may with advantage be applied continuously for a few days, especially if the patient can be kept in bed, until the congestion and inflammation of the tissues surrounding the ulcer have partially or completely subsided, and the discharge from the ulcer has considerably diminished in amount. When this stage has been reached it is necessary to use remedies which will stimulate the healing of the sore by the growth of granulations. Sometimes the stronger antiseptic solutions, as above stated, seem to inhibit the healing of the ulcer rather than stimulate it. Therefore, many times, and this is especially true when there is a profuse discharge or exudate from the ulcer, either physiologic saline solution, or often better, the official liquor antisepticus perhaps diluted, kept thoroughly applied to the ulcer by repeatedly saturating the gauze in contact with the ulcer, makes the most healing application that can be used. This solution is slightly antiseptic, while the liquor antisepticus alkalinus of the National Formulary is alkaline and not antiseptic. This solution also has healing properties.

When a powder has been applied to the ulcer, it should be covered with a pad of sterile gauze large enough to extend several inches beyond the edges of the sore in every direction. A bandage should then be applied smoothly and moderately firmly from the toes to the knee. This fulfills a third indication by applying gentle, uniform pressure which supports the circulation and tends to prevent swelling and congestion of the leg. The bandage also protects the leg from friction with the garments, and prevents contamination with dirt and infection with microorganisms. This dressing should be repeated every second or third day, according to the amount of the discharge from the ulcer.

With reference to the use of bandages to support and improve circulation, Dr. Edward Adams, of New York, (*New York Med. Jour.*, Sept. 29, 1908) writes:

The essential feature of ambulatory treatment is a good bandage to prevent congestion, and, to my mind, Unna's bandage is the ideal one. The paste necessary for the bandage is prepared as follows: First dissolve four parts of the best gelatin in ten parts of water by means of a hot-water bath. While the fluid is hot add ten parts of glycerin and four parts of powdered white oxid of zinc; stir energetically until the mixture is cold. Always melt the paste before using by placing the receptacle in a hot-water bath, as it must be applied while hot, it solidifying on cooling and resembling rubber. The limb should be carefully cleansed with soap and water, then with alcohol, and it must be thoroughly dried before the paste can be used. After heating it is brushed on from knee to foot and a gauze bandage is applied, cutting it frequently instead of reversing, in order to prevent wrinkles; then another layer of paste and another layer of bandage, until a support of several thicknesses is obtained. If the ulcer is secreting freely, a window may be provided or the dressing changed. After the last application of the paste some non-absorbent cotton can be applied, giving the bandage a mole skin finish; or some talcum powder can be used, giving the appearance of a plaster-of-Paris dressing. The bandage can be worn anywhere from two to eight weeks.

If during the course of the healing of the ulcer the granulations grow excessively so as to become exuberant, as it was formerly the fashion to say, and project above the level of the surrounding skin, they should be touched with the nitrate of silver stick.

Another therapeutic device formerly much employed, but at present less in vogue, is the application of strips of adhesive plaster. They should be about one inch in width, and long enough to nearly, but not quite, encircle the leg. They should be applied obliquely, alternate strips overlapping each other about one-quarter or one-third of an inch, and the adjacent strips making an obtuse angle with each other. The ulcer should not only be covered, but also a space from one to two inches above and below the ulcer. A dry powder is dusted on the ulcer before the strips of plaster are applied, and the limb is bandaged over the plaster. Strips of plaster applied in this way tend to draw together the edges of the ulcer, to lessen its depth by depressing the edges, to diminish the congestion and swelling of the surrounding tissues, and by securing these results to promote healing of the ulcer.

Where an obstinate ulcer is dependent on large varicose veins, operative treatment of them may be demanded. This subject has been discussed very clearly by Dr. Edward Adams (already quoted) who writes:

The radical method of treating varicose ulcers after healing, especially when caused by enlarged veins, is by operative interference. The operations chiefly performed are those of Trendelenburg, Schede or Mayo. Trendelenburg's operation is the ligation and extirpation of the internal saphenous vein by a longitudinal or transverse incision at the upper and middle thirds of the thigh, about one and one-half inches in length, along the course of the vein. In suitable cases the relief follows quickly, the wound healing by primary union in about ten days. The operation, however, is not without its dangers, for, in spite of complete asepsis, thrombosis of the proximal stump and embolism have occurred, giving a warning against operating without a strict indication.

Schede's operation consists of a circular incision at the junction of the upper and middle third of the leg, encircling the limb, and removing all the veins to the deep fascia.

Mayo's operation is by the subcutaneous method of dissection. He exposes the vein high up, divides it, and passes over the lower portion an instrument which resembles a dull wire curette. This can be wormed along beneath the skin, dissecting out the vein until it breaks, usually three to four inches from the first exposure. The instrument is reintroduced and the procedure followed as above.

After an operation for varicose veins, the leg should be placed in a Volkmann splint and the patient should remain in bed for three weeks. Massage with active and passive motion should be gradual, and no active work should be attempted until three weeks more have elapsed. A supporting bandage should also be worn for at least six months after an operation of this character.

The chief complication occurring with varicose ulcers is phlebitis. Rest, with elevation of the limb and a wet dressing, must be insisted on; however, if the case is seen early enough, an operation can be performed with excision of the thrombus.

When the ulcer is healed the circulation of the leg should be improved by daily cold bathing and gentle massage, and finally over a thin cotton stocking a well fitted elastic one should be worn.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

535 DEARBORN AVENUE . . . CHICAGO, ILL.

Cable Address . . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

[*For other information see second page following reading matter*]

SATURDAY, JUNE 11, 1910

THE SANITARY SITUATION IN CUBA

That the example of the United States during its occupancy of the Island of Cuba following the Spanish War in the matter of public health and sanitation is being followed out by the present authorities is seen in the official bulletin of the public health department, the January and February numbers of which have just been received.

The fact that Cuba has ceased to be a focus of yellow fever infection at our doors is one for which we in this country have scarcely ceased to feel and to express relief; and Americans have not been reluctant to admit that the reorganized sanitary administration of Cuba deserves credit for carrying on the work inaugurated during the American occupation. As sometimes happens, however, praise from abroad is an embarrassment at home. Local critics of the Cuban government have lately been accusing its Department of Public Health of allowing tuberculosis to increase in Cuba, while using the public funds to eradicate the disease that is most injurious to foreigners, especially Americans. To this accusation Dr. Juan Guiteras, the director of public health, replies[1] with evident feeling in the current number of the official bulletin of his department.

There was a very rapid fall in the death-rate from tuberculosis during the first years of American intervention; but Dr. Guiteras says that this was due to the fact that the enormous mortality of the reconcentration régime had used up the material that furnished the tuberculosis mortality. This decrease was followed by an increase when the children who had survived the miseries of reconcentration arrived at tuberculous age. The influence of the sanitary measures instituted at the time of the intervention and developed and carried out since is shown very clearly in recent years after reestablishment of the natural levels. The Cuban health department has been developing its plans for the last ten years, and the tuberculosis death-rate has fallen from 21.42 per ten thousand in 1900 to 14.9 in 1908. The fall in the mortality from tuberculosis in Cuba, Dr. Guiteras says, has been no slower than in France, Ireland, Norway and portions of Austria-Hungary. The statistics for 1909 are not yet available, but it is believed that the mortality from tuberculosis as well as the general mortality has continued in its descent since the adoption of preventive measures during the first American intervention and since the nationalization of the sanitary service and the creation of a secretary of public health with a place in the cabinet. The director of the health department admits that the immediate results in the campaign against tuberculosis contrast strongly with the results in the campaign against smallpox and yellow fever, but he insists that this is not due to incompetency or neglect. The campaign against yellow fever, he says, is not carried on out of regard for treaties but out of regard for humanity, for the good name of the Cuban people and for the upbuilding of a strong and capable race.

Dr. Guiteras' defense of his department seems a good one; and his resentment at undeserved censure is natural. From this distance, however, we may be permitted to observe that Cuba, having a department of public health to criticize, is to that extent more fortunate than the United States. Moreover, if writers in the Cuban political press, whatever their motives or purposes, find public health measures a good theme on which to harp, this would seem to show that the public mind is either interested in or open to the subjects of hygiene and public well-being—in short, that a healthy public opinion on these subjects is in process of formation. Still more, it is in itself a testimony to the enormous advance which Cuba has made that it is now possible to pick out for criticism a really or supposedly weak spot in the condition of public health in Cuba. Remembering the Havana of old, once called "the filthiest city in the world," if we can suppose that the words "public health" had any other than a sarcastic meaning in the Cuba of Spanish days, can we imagine a Cuban public with any interest to spare for such an abstraction?

"When we contemplate the true sanitary regeneration of the old Spanish colony," says Dr. Guiteras; "when we study the increment in the Cuban population owing both to the increase of natality and the decrease of the mortality; when we can point to the disappearance of smallpox, the reduction of the mortality from malaria to the extent of bringing it down from the first to the eighth place in our records of mortality; when we can place to our credit the eradication of yellow fever with its average yearly record of 600 deaths of Spaniards in the city of Havana alone, the disappearance of the borras fever, so fatal to Cuban children; the gradual decrease of the mortality from infantile tetanus and tuberculosis; when we have seen this tropical country come into competition with the lands most favored by what used to be called a salubrious climate; when we contemplate all this work in the pride of Cuban nationality, we must feel deeply pained to hear it stated that the public treasury is employed by the Department of Public Health mainly to 'prevent the disease that may affect the stranger and more especially of American nationality.'"

1. Guiteras, J.: Tuberculosis in Cuba, Sanidad y Beneficencia, January-February, 1910, p. 6.

We believe that our Cuban confrères can afford to disregard the light affliction of an unjust criticism, which is but for a moment, seeing that the achievements of the past and the faithful cultivation of the opportunities of the future are sure to work for them a far more enduring weight of glory.

FOURTH OF JULY AND TETANUS ARE COMING

We await the returns from the coming Fourth-of-July casualty list with interest, but with only a moderate amount of optimism. After seven years' experience in the compilation of the statistics of this day of wanton bloodshed and slaughter, we have passed through the stage of righteous indignation and are resigned to doing our best, in the hope that some day the indignation that we have felt will become transmuted into public opinion that will lead to the long-urged reforms. There are not wanting signs that the awakening is coming. The public press, which has always taken an active part in the campaign, seems to recount more instances than in previous years of communities where something is being actually accomplished in the way of prevention. In many cities and towns citizens' committees or other organizations have secured reforms or prohibition of the sale of dangerous explosives, while in many places there has been substituted a program of public exercises and illumination far more fitting to the occasion of the anniversary of American independence than is the annual carnival of noise, smoke and bloodshed by which we have desecrated the day for so many years. Enough cities have tried with success the experiment of enforcing laws prohibiting the use of explosives on Independence Day to establish its feasibility, and it is within the power of every community to rid itself of this annual catastrophe; all that is needed is an efficient and clear-seeing chief magistrate, or a few active public-spirited citizens, or some energetic organization which sees its opportunity for service in this matter. Here is a place where medical societies have done good work in a few localities, and there is an unexcelled chance for efficient service by every society located in a town where dangerous methods of celebration are permitted; but some more active and persistent exertion than the passing of resolutions is required if results are to be obtained.

The wide-spread use which has been made of the statistical material collected by THE JOURNAL after each Fourth-of-July celebration is highly gratifying, and we shall continue the accumulation of statistics this year as before.

Last year we were disappointed by an unexpected and not inconsiderable increase in the number of tetanus cases, which fact incites us to continue the urging of vigorous prophylactic measures by physicians who attend to wounds received from explosives. Nothing less than thorough surgical cleansing, supplemented by a preventive dose of at least 1,500 units of tetanus antitoxin, should suffice to satisfy the conscience of any physician. Certainly the experience of the last six years has been conclusive enough as to the almost absolute protection afforded by tetanus antitoxin when given early to patients with properly treated wounds of this kind. It is a matter of some interest that nearly all the recorded cases of failure of tetanus antitoxin to prevent tetanus have occurred in Europe; the reason for these failures is almost certainly to be ascribed to the inferior quality of antitoxin which is on the market over there. Anderson[1] states that the tetanus antitoxin in use in this country, as tested by the Public Health and Marine-Hospital Service, showed much higher antitoxic value than most of the European specimens; the American antitoxins on the market before the adoption of a standard unit containing in different samples 434, 166, 77, 700, and 769 units per c.c., as contrasted with 40, 40, 83, 66, and 50 units in the French and Italian serums. In cases in which the wound does not heal well because of mixed infection, it is desirable to repeat the antitoxin, for, as Rowan[2] has pointed out, in these cases, the tetanus bacilli may continue to multiply in the pus-infected tissues until the injected antitoxin has been exhausted or eliminated, when there may occur a late development of tetanus.

There is nothing new to advocate in the matter of curative treatment, unfortunately. As ever, in the cases with a short incubation period the patients die with but few exceptions, while in those with longer periods of incubation the patients sometimes recover under the most diverse treatments. Free use of antitoxin is indicated, since it will at least neutralize such toxin as is free in the circulation and thus lessen the amount that will act on the nervous tissue; and there seem to be both theoretical and clinical grounds which support the practice of administering it by the intraspinal route when practicable. The use of magnesium sulphate, eucain, or other sedatives by the spinal route is still in the experimental stage, with sufficient favorable results on record to warrant trial by those who are competent to make and to observe such experiments.

ACCELERATIVE AND RETARDATIVE FUNCTIONS OF THE GLANDS OF INTERNAL SECRETION

Important and interesting facts have been brought to the attention of the medical world as a result of investigation into the functions of the ductless glands. It is to the correlation of these facts that we must look for a satisfactory understanding of the part played by these glands in the regulation and maintenance of life. The difficulties of research have been so many and the establishment of facts so gradual that progress in our knowledge of these glands has seemed slow. At present, how-

1. Anderson, John F.: The Commercial Preparations of Tetanus Antitoxin, THE JOURNAL A. M. A., Jan. 22, 1910, liv, 253.
2. Rowan, Charles J., The Prophylactic Use of Tetanus Antitoxin, THE JOURNAL A. M. A., Feb. 12, 1910, liv, 533.

ever, there has accumulated a sufficient number of observations to render it probable that some insight into the workings of these obscure glands might result from an attempt to unify the isolated facts.

This work of unification has been very well begun by members of the Vienna school. They have pointed out the striking fact that, beside their own specific action, the ductless glands interact among themselves, and that any disturbance in the working of one results in an upset to the equilibrium of the rest; in consequence, the body metabolism is disturbed in many of its subdivisions—protein, carbohydrate, fat, and mineral. It has been the special service of this school to attempt an arrangement of the ductless glands into groups using disturbances of the metabolic functions of the body, to which they give rise, as a basis for classification.

On broad lines of function the ductless glands may be divided into two groups: (1) the accelerative, and (2) the retardative.

Into the first group fall the thyroid, the adrenals and the hypophysis. On study of the reactions of the body to injections of their prepared substances and on observation of experimental interference with their functions it has been found that all three increase protein exchange, the most marked effects being noticeable in the case of the hypophysis. The adrenals cause mobilization of the carbohydrates, and the thyroid leads to increased destruction of fat.

Into the second group fall the pancreas and the parathyroids. Both retard protein destruction, the pancreas being the more effective. Both likewise restrain the mobilization of carbohydrate; here too the pancreas is the more active. Likewise, the pancreas causes decrease in fat consumption.

A consideration of the relation of the ductless glands to mineral metabolism is of much interest. Feeding of thyroid tablets has been found to be followed by increased output of phosphates by the intestines, while feeding of hypophysis leads to a decrease in phosphates in the urine and an increase of the same in the feces. After the administration either of thyroid or of hypophysis extract, dogs show a great increase of calcium in the feces and of magnesium in the urine. With epinephrin it is different; the ratio of nitrogen to phosphorus pentoxid decreases and the calcium and sodium output is increased. The parathyroids exert a special restraining influence on calcium metabolism as shown by the increase in calcium in the urine and loss in the tissues when this gland is removed experimentally. Such findings suggest the inquiry whether the ductless glands directly influence the metabolism of the minerals of the body, or whether such changes are secondary results of some primary general disturbance. Exact quantitative experiments alone can solve this problem.

The effects of the thyroid and of the parathyroids on the nervous system are strikingly different from one another. With excision of the parathyroids the galvanic irritability of the nerves decreases, while in dogs deprived of the thyroid it increases. This may possibly be brought into relation with the loss of calcium in parathyroidectomy, as calcium strongly decreases the irritability of the central nervous system.

Do the ductless glands have any influence on the blood? On this point some experimental findings are of interest. After epinephrin injection a leucocytosis develops, which is of the neutrophilic polymorphonuclear type; there is also a decrease in eosinophils. Thyroid extract likewise causes a decrease in eosinophils, which is slower to make its appearance, while hypophysis extract has no definite influence.

A comparison of the action of the glands in the same group has been fruitful. For example, both epinephrin and hypophysis extract, when injected into dogs, raise the blood-pressure, but the action of the hypophysis is slower and weaker. Hypophysis extract slows the heart but little while epinephrin does so powerfully. On section of the vagus nerve no change in rate takes place after hypophysis injection, while in the case of epinephrin a marked increase in rate comes on. Pituitary extract narrows the coronary arteries while epinephrin widens them; the opposite is true of the kidney vessels, a fact which probably explains the polyuria in some diseases of the hypophysis.

Do the ductless glands act through the discharge into the circulation of specific hormones? Such is the conception of Falta regarding the action of epinephrin, which he considers as having a special affinity for the sympathetic nerves. The mobilization of sugar in the liver is, according to his view, under the influence of the sympathetic, by mediation of the adrenals.

Though the observations on the activity of this group of glands are still meager, and their interpretation difficult, the work of unifying these results has already forecast important relations between them. The activity of many laboratories in this special field promises much for the future. Perhaps it is not too much to hope that, through the study of these glands, important light may be shed on the etiology and treatment of the still obscure metabolic diseases.

THE CARNEGIE FOUNDATION REPORT ON MEDICAL EDUCATION

So many marvelous things have been brought about in the domain of medical education during the past few years that great changes now seem commonplace and events of even greater magnitude would be taken as a matter of course. Nevertheless, all who are acquainted with the work which the Carnegie Foundation for the Advancement of Teaching has been doing in the investigation and standardizing of universities and colleges, have been awaiting with eager interest that body's report on medical education. The report has just appeared and undoubtedly will meet the highest expectations of those who have been watching for it.

As has been stated in these columns,[1] the Carnegie Foundation was established in 1905 by Andrew Carnegie, who set aside a fund of $10,000,000 to provide retiring allowances and pensions for teachers in colleges and universities. At first, state universities were excluded, but later the endowment was increased by $5,000,000 in order that the benefits of the fund might be extended to them also. Realizing that not all institutions which call themselves colleges or universities are worthy of such titles, the foundation made an investigation of educational institutions in order to determine which were acceptable. Only the professors of such colleges as came up to the standards fixed by the foundation were eligible to receive pensions. Many of the universities found acceptable had medical departments and already not a few medical teachers have retired on Carnegie allowances. The Carnegie Foundation consequently stands for the advancement of medical teaching to quite the same degree as it stands for the advancement of teaching in other branches.

At the beginning, the investigations of the foundation were directed toward the college as the portion of the educational system most directly benefited by the endowment. This led to a study also of the university with its various departments, including the medical school. In the natural evolution of the foundation's work, therefore, medical education was taken up, and apparently at the psychologic moment, following as it did the first inspection made by the Council on Medical Education and being made simultaneously with the Council's second inspection. The reports of both of these bodies will have added importance, inasmuch as the two deal largely with the same problems.

The investigation of all the medical schools of the United States and Canada has been completed, and apparently with the same thoroughness as the study of other institutions in which the foundation has been interested. The foundation has quite properly taken the position that medical schools as well as colleges and universities are in truth public-service corporations, whether supported by taxation or private endowment; that the public has a right to know the facts concerning their equipment and ability to furnish education; and that only by a publication of the facts, unbiased by local ambitions or points of view, can the best interests of education be subserved. From the view-point of the needs and qualifications of the medical student and the interests of the general public, the foundation has examined carefully into the demand for physicians, the number of colleges necessary to satisfy that demand and the standards of preliminary education, teachers, laboratory equipment and clinical facilities which could reasonably be required of the medical schools.

Emphasis is laid on the fact that the social order is best served when the number of men entering a given profession reaches and does not exceed a limited ratio and that the present condition of the medical profession, overcrowded by ill-trained physicians, is very unsatisfactory. The illustration is used that "when six or eight ill-trained physicians undertake to make a living in a town which can support only two, the whole plane of professional conduct is lowered, and, in the struggle which ensues, each man becomes intent on his own practice, public health and sanitation are neglected, and the standards of the profession tend to demoralization." The best interests of the general public are certainly not best subserved under such conditions.

The report also suggests that with the present oversupply of medical schools, a state having no medical schools may be supplied with as good, or possibly better, physicians than other states which may possess several medical colleges, and that, at the present time at least, a community's best interests may be best served by the absence of medical colleges.

Regarding sectarian medicine, the foundation has taken the only logical position, namely, that, regardless of the method of treatment employed, all practitioners alike should have a thorough grounding in the fundamental medical sciences. Unless the physician is sufficiently well trained to make a proper diagnosis, treatment by any method would be mere guess-work, unscientific, and more apt to do harm than good.

This report is evidently the result of an enormous amount of painstaking work and is worthy the most careful study.[2] Coming from an agency outside and independent of the medical profession, it is sure to have a most profound influence on medical education in general, and claims of partiality or prejudice cannot be made against it. It is the more valuable since it comes from an agency whose function it is to investigate, compare and standardize all departments of education, technical and professional as well as general and collegiate, and indicates how the medical school, as a part of the educational system of our country, compares with the other parts of that system. If the conditions revealed by this extensive investigation are given a wide publicity, the result to medical education can be only good. The actual facts, in the end, will be more helpful than the poetry of the medical school catalogues and advertisements, especially to state licensing boards, some of which are now endeavoring to ascertain the actual character of the medical schools that send them applicants for license. Noteworthy forward steps, especially in the line of consolidation of medical schools, have already received effective encouragement from the Carnegie Foundation, and undoubtedly, this report will call the attention of men of wealth to the need of endowments for medical education. It is evident that the Carnegie Foundation is in a position in which it may exert a powerful and growing influence for good on the development of medical education in this country.

1. THE JOURNAL A. M. A., Aug. 14, 1909, p. 559.

2. A copy of the report may be obtained by sending 17 cents, for postage, to The Carnegie Foundation, 576 Fifth Avenue, New York City.

WOMAN'S MEDICAL COLLEGE OF BALTIMORE PERMANENTLY CLOSED

A letter from Dr. John R. Abercrombie, dean of the Woman's Medical College of Baltimore, informs us that, at a recent meeting of the faculty, it was decided to close that college permanently at the end of the present session. The reasons given are that sufficient funds were not available to make the improvements in the equipment and teaching facilities which the faculty considered essential and that the faculty preferred to close the college, rather than continue it as a medical college of other than the first rank, thereby preserving the excellent record maintained during the twenty-eight years of its existence. This is another instance in which faculty members have been willing to sacrifice personal interests that medical education might be improved, better standards prevail, and the public be provided with better trained physicians. After all, it is not strange that we seldom hear of such action as this being taken by colleges conducted solely for profit. It is almost invariably the colleges with higher ideals than those based on commercialism which, seeing the impossibility of maintaining those high ideals, voluntarily close. The colleges inspired by profit will enforce reasonable standards or close only when required to do so by state licensing boards.

THE ST. LOUIS SESSION

As we go to press the St. Louis session promises to be one of the most successful in the history of the Association. The weather is magnificent and augurs well, not only for a highly satisfactory Session, but also for the success of the outdoor entertainments planned. The first meeting of the House of Delegates was held Monday under the presidency of Col. Gorgas, and the usual routine business was transacted; the account of the proceedings appears on page 1963. A cordial reception was given to the visiting physicians. The registration on Monday was 1,400 and that number was greatly exceeded on Tuesday.

Medical News

ARKANSAS

Sanatorium for Odd Fellows.—The Arkansas Grand Lodge of Odd Fellows has selected a farm near Walnut Ridge, Lawrence county, as a site for a tuberculosis sanatorium for which $100,000 was devised under the will of the late A. W. Shiery, Little Rock.

Personal.—Dr. Morgan Smith, Little Rock, has been appointed assistant secretary for Arkansas, of the Rockefeller Sanitary Commission.——Dr. William W. Rice has been appointed president and Dr. Albert S. Buchanan, secretary of the Prescott Board of Health.

Commencement.—The fourth annual graduating exercises of the College of Physicans and Surgeons were held in Little Rock, April 29. Dr. C. H. Hoffman delivered the address to the graduating class which numbered 26 and the diplomas were presented by Dr. Joseph P. Runyan, president of the board of directors of the college.

County Society Meetings.—At the annual meeting of the Randolph County Medical Society, held in Pocahontas, April 21, Dr. John W. Brown, Swartz, was elected president; Dr. William E. Hughes, Pocahontas, secretary; Dr. Carl Scheidt, Pocahontas, treasurer; Dr. H. B. Hull, Ravenden Springs, delegate to the state society, and Dr. Thomas Z. Johnson, Holmes, alternate.——Howard County Medical Society at its recent meeting in Ashdown, elected Dr. W. M. Gibson, Nashville, president, and Dr. William H. Toland, Mineral Springs, delegate to the state society.

CONNECTICUT

Tuberculosis Farm Sanatorium Prospers.—At the sixth annual meeting of the New Haven County Antituberculosis Association, held at the Gaylord Farm Sanatorium, Cook's Hill, Wallingford, Dr. Edward T. Bradstreet, Meriden, was elected a director. The average number of patients under treatment during the year was 59, and the total number of patients treated 117. Up to date 1,007 have applied for admission to the sanatorium, of whom 668 were accepted. During the last year 62 patients remained at the sanatorium for less than three months, 50 of whom left the institution distinctly improved; 104 patients remained for three months, and of these 23 were incipient cases, of which 21 were discharged with the disease arrested; 75 patients came with the disease moderately advanced, and of these 51 were discharged with the disease arrested, and 11 improved; 6 patients came in a very advanced condition of the disease; in 2 of these the disease was arrested and in 2 the patients improved.

Societies Meet.—At the annual meeting of the Norwich County Medical Society, in Norwich, May 16, the following officers were elected: Dr. Patrick H. Harriman, president; Dr. Dennis J. Shahan, vice-president, and Dr. William B. Casey, secretary and treasurer, all of Norwich.——At the one hundred and eighteenth annual meeting of the Tolland County Society, held in Rockville, April 20, the following officers were elected: President, Dr. Cyrus E. Pendleton, Hebron; vice-president, Dr. Frank M. Dickinson, Rockville; secretary and treasurer, Dr. Elip P. Flint, Rockville; councilor, Dr. Thomas F. Rockwell, Rockville, and delegate to the state association and censor, Dr. Frank L. Smith, Stafford Springs.——At the meeting of the newly organized Connecticut Society of Social Hygiene, held in Hartford, May 14, Dr. Phineas H. Ingalls was elected president; Dr. Carles S. Stern, treasurer; Dr. Thomas N. Hepburn, secretary; Dr. Oliver C. Smith, chairman of the treatment committee; Dr. Frederick T. Simpson, chairman of the publication committee, and Dr. Alva E. Abrams, chairman of the educational committee, all of Hartford.

DISTRICT OF COLUMBIA

District Association Election.—At the annual meeting of the Medical Association of the District of Columbia, April 26, Dr. Noble P. Barnes was elected president; Dr. Edwin B. Behrend, vice-president; Dr. Luther H. Reichelderfer, secretary, and Dr. Frank Leech, treasurer.

Personal.—Dr. Thomas E. Satterthwaite, New York City, was a guest of honor at the annual dinner of the Washington Medical and Surgical Society, May 4, and delivered an address on "Some Newer Conceptions of Myocardial Disease."——Dr. Henry W. Miller, clinical director of the Government Hospital, Washington, has been appointed superintendent of the Maine Insane Hospital, Bangor.——Dr. Francis Dowling, Cincinnati, gave an illustrated lecture, May 27, before the U. S. Naval School, Washington, on "The Medical Giants of France." The occasion was the eighth anniversary of the founding of the school.

Pasteurized Milk Laboratory Opened.—Exercises attendant on the formal opening of the Nathan Straus Pasteurized Milk Laboratory were held at George Washington University Medical School, May 11. Hon. Jacob H. Gallinger, M.D., U. S. senator from N. H., presided and addresses were made by Surgeon-General Walter Wyman, Dr. A. D. Melvin, chief of the Bureau of Animal Industry, Hon John Johnson, commissioner of the district; Dr. William C. Woodward, health officer of the district; Dr. Milton J. Rosenau, professor of preventive medicine and hygiene in Harvard University, Dr. James H. M. Knox, Jr., Baltimore, president of the National Society for the Prevention of Infant Mortality, and Dr. Arthur R. Green, medical director of the Nathan Straus work in New York City.

INDIANA

Antituberculosis Society Organized.—The Deleware County Antituberculosis Association was organized at Muncie, May 5. Dr. William J. Molloy was elected vice-president and Drs. Hugh A. Cowing, Clarence G. Rea, Clay A. Ball and Earle S. Green were elected members of the executive committee.

Found Guilty.—Dr. Eugene V. Redlinger, Huntington, charged with incest and the crime of abortion on his stepdaughter, is said to have pleaded guilty to the charge of abortion, April 29, and to have been sentenced to be imprisoned in the penitentiary for a term of from three to fourteen years and to pay a fine of $500.

District Society Meetings.—At the annual meeting of the Twelfth District Medical Society, held in Fort Wayne May 17, the following officers were elected: President, Dr. Fred A. Metts, Ossian; vice-presidents, Dr. Douglas A. Swartz, South Whitley, and Dr. Woodward H. Hayes, Albion, and secretary and treasurer, Dr. Garrett Van Sweringen, Fort Wayne. In the evening Dr. Mazyck P. Ravenel of the University of Wisconsin delivered an address on "The Transmission of Bovine Tuberculosis to Man."——The Ninth Councilor District Medical Society held its annual meeting in Tipton, May 20, and elected the following officers: President, Dr. Andrew S. Dickey, Tipton; vice-presidents, Dr. Edgar Cox, Kokomo, and Dr. William J. Fernald, Frankfort; secretary-treasurer, Dr. Paul J. Barcus, Crawfordsville, and assistant secretary-treasurer, Dr. George T. Williams, Crawfordsville. The next meeting of the society will be held in Kokomo.——The sixth annual meeting of the Indiana Fourth District Medical Society was held in Lawrenceburg, May 27. Dr. John P. Ward, Vevay, was elected president; Dr. John Elfers, Rising Sun, vice-president; Dr. Curtis Bland, Greensburg, and Dr. James H. Green, North Vernon, treasurer. The next meeting will be held in Greensburg.

MARYLAND

Personal.—Dr. J. Frank Miller, a graduate of the Baltimore Medical College, 1909, has opened an office in Reisterstown, Baltimore county.

Aged Physician Convicted.—Dr. David W. Jones, Hagerstown, is said to have been found guilty, May 25, of attempted malpractice on a young woman and to have been sentenced to pay a fine of $100 and costs.

Tuberculosis Sanatorium Managers Meet.—The managers of the Maryland State Tuberculosis Sanatorium at their annual meeting, May 19, reelected Dr. H. Warren Buckler, Baltimore, vice-president; Dr. Victor F. Cullen, state sanatorium superintendent, and Drs. Edson M. Glidden and W. Miles Garrison, assistants.

Health Officers Appointed.—The following have been appointed health officers of Carroll county: Taneytown, Dr. Franklin H. Seiss; Uniontown, Dr. Luther Kemp; Myers, Dr. Levi Wetzel; Woolery's, Dr. Robert F. Wells; Freedom, Dr. Milton D. Norris; Manchester, Dr. John F. B. Weaver; Westminster, Dr. Charles R. Foutz, for the district and at large; Hampstead, Dr. Richard C. Wells; Franklin, Dr. Edwin D. Cronk; Middleburg, Dr. Charles H. Diller; New Windsor, Dr. George H. Brown; Union Bridge, Dr. James Watt; Mount Airy, Dr. William E. Gaver; Berrett, Dr. Daniel B. Sprecher.

MASSACHUSETTS

Bequest to Hospital.—By the will of the late Mrs. Annie Prescott Lincoln, Boston, $25,000 is devised to Grace Hospital, formerly Emergency Hospital, Boston, for a bed to be maintained in memory of her husband, Joseph Bates Lincoln.

District Medical Society Elects Officers.—Berkshire District Medical Society, at its annual meeting held in Pittsfield, May 3, elected the following officers: President, Dr. Harry B. Holmes, Adams; vice-president, Dr. Clifford S. Chapin, Great Barrington; secretary, Dr. Isaac F. Dodd, Pittsfield; treasurer, Dr. Joseph D. Howe, Pittsfield; trial commissioner, Dr. John J. Hassett, Lee; councilors, Drs. James F. A. Adams, Pittsfield; Lyman A. Jones, North Adams, and Orland J. Brown, North Adams, and censors, Drs. James F. A. Adams, Pittsfield; Albert T. Wakefield, Sheffield; Martin M. Brown, North Adams, Stephen C. Burton, Pittsfield, and John B. Thomas, Pittsfield.

NEW YORK

Public Health Association.—The Rochester Public Health Association held its annual meeting, May 10, and adopted resolutions commendatory of the stand taken by the local officials for the preservation of the cleanliness of the city and for proper sanitation. Dr. Montgomery E. Leary was elected secretary and supervising director of the association.

Attempt to Defeat Undesirable Bill.—A bill has been presented to Governor Hughes and to Mayor Gaynor which changes the existing medical law in regard to the fines imposed on violators of the medical law. At present when violators are successfully prosecuted the fines go to the Medical Society of the County of New York for the support of its work in seeking out offenders. The new bill adds, "Provided, however, that in the City of New York no fines shall be paid to any such societies, but shall belong to the said City of New York." At the present time practically the only check on unlicensed practitioners, midwives, druggists selling abortion drugs, quacks, corporations advertising the practice of medicine by unknown physicians, and fakers of all kinds who practice medicine under the cloak of religion or occultism, is the active prosecution of the Medical Society of the County of New York and hence it is urged on all the members of the county society that they use their influence to prevent the passage of this bill.

New York City

Smallpox in Manhattan.—Five cases of smallpox were recently detected in a tenement in Harlem. It was found that many persons had been exposed and the Board of Health made over 500 vaccinations in the immediate neighborhood.

Crusade Against Wood Alcohol.—The first cases in the present campaign against wood alcohol that is being conducted by the Board of Health have been found guilty and fined $100 and $150 for selling adulterated whisky. Of the samples collected on the East Side and analyzed, 20 per cent. were found to contain wood alcohol. Several cases have been put over as it is expected that the United States government will take some action against the wholesalers who have sold the poison to the retailers.

Inebriate Bill Signed.—Mayor Gaynor has approved the bill passed by the legislature which permits the board of estimate to establish a commission for dealing with inebriates and a hospital and industrial colony to be used for the reformation of drunkards. It has been stated that the board of estimate will not furnish money for the scheme as drunkenness is decreasing very markedly in recent years and it is claimed that present educational and social work is largely doing away with the evil.

A New Move to Guard Public Health.—Dr. Charles Mallory Williams, Executive Librarian of the New York Academy of Medicine has asked for a collection of the reports of committees appointed at various times to investigate questions of public health so that they may be available for workers. Dr. Williams would like to have the reports of investigations along such lines as harbor pollution, the alcohol question, the prevention of tuberculosis and of occupational diseases and the sanitation of tenements.

To Establish Optometry Course.—Columbia University has just sent out announcements that it will start the first optometry course to be offered by any college or university in this country. The course will begin in September and intends to equip graduates so that they may examine people's eyes and fit glasses, but they are not to use drugs. The course will be made a part of the department of physics. The Michigan State Optical Society has telegraphed that it will give the first free scholarship in the new course.

Free Dentistry for School Children.—The free dental clinic that was established in January on One Hundred and Twenty-first street to care for the teeth of school children has completed its first four months of work. During this period more than 5,000 school children have been treated. The Department of Health maintains the clinic and children are not treated until a personal visit has been made to the home of the child to see that the parents are unable to pay for treatment. Dr. S. Josephine Baker, chief of the division of child hygiene, states that out of 323,000 school children examined during the 1908-09 school year 183,000 had defective teeth.

New Hospital Building for Post-Graduate Medical School.—Work has been commenced on the new building for the New York Post-Graduate Medical School, which is to cost $6,000,000, making the institution's capacity about 400 beds. The building proposed is to be twelve stories in height and will include a tower with rooms for fifty private patients and a pavilion on the roof for open-air treatment. A loggia on three floors open to the street front and to the rear is also planned, where beds can be kept permanently with exposure to the air. In addition, three long balconies to the eastward are proposed, and the entire top of the main building, seven stories high, with the exception of the space taken up by the tower, will be occupied by a roof garden, so that unusual provision will be made for giving the patients fresh air. There are to be eight small operating rooms and a number of well-equipped laboratories for research work. After the new building is completed the present quarters of the Post-Graduate, adjoining, will be converted into a nurses' home in connection with the college.

Buffalo

Commencement Exercises.—The annual commencement exercises of the Medical Department of the University of Buffalo were held May 27 when a class of thirty-eight received diplomas. Dr. Matthew D. Mann delivered the Doctorate address.

Dinner to Dr. Mann.—A dinner was given to Dr. Matthew D. Mann by the Alumni Association of the University of Buffalo, May 26, on the occasion of Dr. Mann's retirement as Dean and Professor of the department of Obstetrics and Gynecology. A loving cup was presented to Dr. Mann by the faculty of the University with suitably embossed resolutions by the graduating class on it.

Personal.—Drs. Roswell Park, Charles Cary and Gustav Hitzel, Buffalo, have started for Europe.——Dr. Roswell Park, Buffalo, has resigned as a trustee of the J. N. Adam Memorial Hospital.——Lieut. Col. Albert H. Briggs, major of the 65th Infantry, N. G. N. Y., has been promoted to Chief Medical Officer of the 4th Brigade and Dr. Nelson G. Russell has been appointed Surgeon of the regiment with the rank of Major. Dr. Carroll J. Roberts has been promoted to Captain and Assistant Surgeon and Dr. William T. Getman has been appointed Assistant Surgeon with the rank of 1st Lieutenant.

PENNSYLVANIA

Negroes League Against Tuberculosis.—Fifty of the leading negroes of western Pennsylvania on May 21 applied for a charter for the Negro Tuberculosis Hospital League, to provide separate tuberculosis sanatoria in the state for the afflicted of their race. The tuberculosis hospitals of the state refuse to admit them, although such hospitals which have state aid, are willing to and do furnish milk, eggs and other foodstuffs needed by negro consumptives in their homes. It is the intention to raise a fund to get state aid to erect one hospital near Philadelphia and another near Pittsburg.

Philadelphia

Personal.—Surgeon-General George H. Torney, U. S. A., and Surgeon-General Charles F. Stokes, U. S. N., will be the guests of honor at a reception given by the Medical Club of Philadelphia, at the Bellevue-Stratford Hotel, Friday evening, June 17.——Dr. J. H. Parson, of London, England, the official guest of the Section on Ophthalmology of the American Medical Association, was the guest of honor at a dinner given by Dr. George E. de Schweinitz at the Bellevue-Stratford Hotel, May 31.——Dr. Alfred Saenger, Hamburg, Germany, was the guest of honor at a dinner given by Drs. Francis X. Dercum and Charles K. Mills at the Art Club on May 31.——The honorary degree of LL.D. was conferred on Dr. S. Weir Mitchell by Jefferson Medical College at the annual commencement exercises, June 6.

Hospitals in Philadelphia Improved.—More than fifty hospitals at present supply the physical and teaching requirements of this medical center, and these plants are undergoing constant expansion. The Rush Hospital for the Treatment of Consumption and Allied Diseases, at Lancaster avenue and Thirty-third street, on May 21, opened for inspection of the public the newly completed portion of its intended group of buildings. The University Hospital on May 12 broke ground for a new group of laboratory structures at Pine and Thirty-seventh streets. A new section of the Nurse Training School dormitories (with capacity for 40 additional nurses) at the Philadelphia General Hospital, Pine and Thirty-fourth streets, was opened May 12.

VIRGINIA

Northern Neck Physicians Hold Meeting.—At the annual meeting of the Northern Neck Medical Association, the following officers were elected: President, Dr. Andrew C. Fisher, Emmerton; vice-presidents, Drs. C. T. Pierce and Loren E. Cockrell, Reedville; secretary, Dr. Robert O. Lyell, Warsaw, and treasurer, Dr. Walter N. Chinn, Hague.

Personal.—Dr. Roscoe C. Carnal, Ballsville, has been appointed hookworm inspector for the district composed of the counties of Princess Anne, Norfolk, Nansemond and Isle of Wight.——The Norfolk school board has elected Drs. Julian A. Norfleet, S. Roszel Donohoe, Millard P. Doyle and J. Judd Miller medical examiners for the public schools of the city.

WASHINGTON

State Medical Board Appeals.—The State Medical Board, on May 13 gave notice of appeal to the Supreme Court from the decision of the Superior court of King's county ordering the Board to grant a physician's license to Mrs. Lucile Berfield Hazzard, a woman who is said to have used starvation methods in treatment of disease.

Hospital Corner Stone Laid.—The corner stone of the new Providence Hospital, Seattle, was laid with impressive ceremonies by the Bishop of Seattle, May 1.——The contract for the addition of a new wing to St. John's Hospital, Ketchekan, has been awarded. The wing will be two stories in height and will contain operating rooms, wards, private rooms, etc.

Personal.—Dr. J. Earl Elsie, Pullman, has been elected delegate to the state medical society and Dr. William B. Palamountain, Colfax, alternate.——Dr. Elisha B. Schrock has resigned as a member of the staff of the Municipal Hospital, Seattle, and has been succeeded by Dr. J. M. Lea, Knoxville, Tenn.——Dr. James A. LaGasa, formerly Commissioner of Health of Tacoma, was operated on for appendicitis, May 4, and is reported to be doing well.

Tuberculosis Notes.—Two lots in the town of Glacier have been deeded to the Whatcom County Anti-Tuberculosis Society on which it is hoped that a sanatorium will be established in a short time.——The Everett Anti-Tuberculosis Society at its annual meeting elected Dr. Albert P. Duryee a director.——Whatcom County Anti-tuberculosis League was organized at Bellingham, April 28, and the following physicians were elected to office: President, Dr. Edward C. Ruge, Bellingham, and directors, Drs. Orville E. Beebe, Everson, and Spencer S. Howe, Lynden.

WYOMING

Will Prosecute Illegal Drug Sellers.—The State Board of Medical Examiners, at its quarterly meeting, adopted resolutions setting forth that hereafter it would revoke the certificate of any physician who violates the laws of the state by selling cocain or other drugs to drug addicts.

Personal.—Dr. F. Di Giacoma, Rock Springs, is said to have been adjudged insane and committed to the state hospital at Evanston.——Dr. Harry H. Ainsworth, Cody, who was operated on recently for appendicitis, is reported to be convalescent.——Dr. William A. Wyman has been elected president, Dr. George L. Strader, secretary, and Dr. Otto K. Snyder, treasurer, of the medical staff of St. John's Hospital, Cheyenne.

GENERAL NEWS AND COMMENT

Physicians of Virginia and the District Meet.—The medical societies of Northern Virginia and the District of Columbia, at their annual meeting in Manassas, Va., elected the following officers: Dr. A. Barnes Hooe, Washington, president; Dr. A. H. Coombs, Fairfax, Va., recording secretary; Dr. Charles S. White, Washington, corresponding-secretary, and Dr. Frederick M. Brooks, Fairfax, treasurer.

Southern Railway Surgeons Meet.—The fifteenth annual meeting of the Association of Surgeons of the Southern Railway was held in Richmond, May 24-26, under the presidency of Dr. Charles H. Starkel, Belleville, Ill. Among the interesting topics of discussion were the address of Surgeon Charles P. Wertenbaker, U. S. P. H. and M.-H. Service on "Sanitation of Railway Stations," and the paper of Dr. Henry T. Bahnson, Winston-Salem, on "Alcohol as a Dressing for Wounds." The Samuel Spencer Memorial Address was delivered by Dr. Lucien Lofton, North Emporia, Va. The Owen Bill calling for the establishment of a federal department of health was unanimously endorsed. Mobile was selected as the next meeting place. The following officers were elected: President, Dr. William C. Day, Danville, Va.; vice-presidents, Drs. H. J. Milliken, R. A. Smith, Hales Mill, Va.; Ambrose McCoy, Jackson, Tenn., and James P. Salb, Jasper, Ind.; secretary and treasurer, Dr. Jacob U. Ray, Woodstock, Ala., and member of the executive committee, Dr. Jay H. Durkee, Jacksonville, Fla.

Meeting of National Association for the Study and Prevention of Tuberculosis.—The sixth annual meeting of the above association, held in Washington May 2 and 3, was briefly reported in THE JOURNAL, May 14, page 1621. The resolution in regard to the pasteurization of milk placed the association on record as favoring clean milk and declaring that pasteurization is valuable where certified milk cannot be obtained, but that the process should be carefully supervised. The same resolution, however, declared that tuberculosis of the glands and lymph nodes in children, or other forms of tuberculosis are rarely caused by infection from bovine sources. Dr. William H. Park, of the New York Health Department, also showed in his paper that from a careful study of 400 cases of tuberculosis of all types chosen at random, only 2.5 per cent. of tuberculosis in New York comes from infected milk, butter or meat, and this small percentage is found mainly in children and that tuberculosis in adults therefore comes from human beings. His conclusions were confirmed by about 500

cases studied in other parts of the world. Considerable interest was manifested in the paper of Dr. Lee K. Frankel, of New York, on the compulsory establishment of a fund from the wages of workmen to provide for their fellows who become afflicted with tuberculosis. Dr. Frankel believed this feasible and constitutional, but that a system of voluntary insurance would be impracticable. Dr. Livingston Farrand, executive secretary of the national association, reported that since May 1, 1909, the number of state and local antituberculosis associations has increased from 297 to 431, a gain of 134; the number of special dispensaries from 222 to 286; the number of sanatoriums and hospitals from 294 to 393, and the number of beds for tuberculosis cases from 15,244 to 22,720, a gain of 7,476. Eleven state legislatures in session since that time have enacted some law with reference to tuberculosis.

FOREIGN

Other Deaths in the Profession Abroad.—Besides the losses in the profession mentioned elsewhere, the death of the following eminent medical men should be recorded: E. van Beneden, professor of zoology at the university of Liège, Belgium, and founder and editor of the *Archives de Biologie*, noted for his important research on embryology, comparative anatomy and histology, president of the Belgian academy of sciences, corresponding member of five other academies, and recipient of honorary degrees from five British and German universities. His studies of hookworm disease and suggestions for prophylaxis were instrumental in stamping out the disease in the Belgian mines. The institute of zoology at Liège became under his guidance one of the foremost research laboratories of Europe.——E. L. V. Oedmannson, until recently professor of skin and venereal diseases at the university of Stockholm.——V. Mirbelli, professor of skin and venereal diseases at the university of Parma, Italy, one of the leaders in his specialty in Italy.——Although not a member of the medical profession, the death of S. Cannizzaro at the age of 84 may be mentioned in this connection, as his research on organic chemistry, the specific heat of elements, the distinction between atoms and molecules, his work on benzyl alcohol, etc., have aided in the solution of medical problems. He was professor of organic chemistry in the university of Rome and a senator of the realm.——C. Zanghello, an Italian physician, recently succumbed to bubonic plague at his post in the isolation hospital at Djeddah on the Red Sea, another victim to professional duty.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, May 28, 1910.

The Study of Tropical Diseases

Sir Francis Lovell, dean of the London School of Tropical Medicine, has returned to this country after a tour extending over five months in the West Indies for the purpose of interesting those colonies in the work of the school and obtaining subsidies from them in aid of research work in tropical disease. He visited Barbados, the Windward and the Leeward Isles, Jamaica, Trinidad and British Guiana, at all of which places he was received cordially by the authorities and promised grants for the school. The total amount is about $2,500 a year for the next five years. Since its establishment ten years ago the school has trained 1,100 postgraduates in the study and investigation of tropical diseases. The income from fees and subscriptions is not sufficient to defray the cost of ordinary instruction, so that if research work is to be carried out on an adequate scale grants of some kind are necessary. The school has recently sent an expedition in charge of Dr. Bahr to Fiji to study tropical dysentery and another to Bagdad in charge of Dr. Wenyon to study "Delhi boil," which has been found to have some connection with kala-azar.

The Survival of Bedbugs

The length of time which bedbugs can survive without food is a point of practical importance. It has arisen in connection with the use of flock bedding made from filthy rags without disinfection. It was thought that, whatever its dangers, such flock would not contain living bugs as these animals were incapable of surviving many days without food. A correspondent of the *British Medical Journal*, Dr. W. Habgood, a health officer, has pointed out that this is not true. On having a house cleaned Sept. 1, 1909, he had 25 bugs collected in a clean bottle in which was placed a piece of clean white paper and clean calico. The mouth of the bottle was covered with a piece of clean calico. On October 26 all were alive. On Jan. 21, 1910, three or four old ones and one young one were alive. On February 26, nearly six months after capture, one large bug was running actively over the paper after the bottle had been warmed. The doctor's object in making the experiment was to find out whether the statement made by new tenants of a house that had been empty for months that bugs were there before their arrival was true.

The Development of Specialism

Like everything new the development of specialism in this very conservative country met with great opposition. Many specialties such as laryngology, proctology and genitourinary diseases were at first regarded with disfavor. They were long unrecognized by the large general hospitals and had to establish themselves at first in small hospitals built for the purpose. The force of events has proved too strong for the conservatives and also for the law of differentiation of advancing knowledge which evolutionists teach is being continually exemplified here as elsewhere. Still the suspicion with which specialists have been regarded has not wholly passed away. One of the most famous of the London hospitals—Guy's—has just made a remarkable advance in the recognition of specialism. The magnitude of the change will be appreciated by looking back on its history. Not until 1824, a century after its foundation, did any special department exist. In that year the ophthalmic department was created. In 1833 the electric department was established; in 1842 the obstetric department; in 1885 the throat department, and not until 1907 the orthopedic department. In this, as in many of the London hospitals, a general physician or surgeon might hold an appointment in the special department. Thus a general physician might be the dermatologist or a general surgeon the laryngologist. Now it has been decided to establish in Guy's Hospital a number of appointments which can be held only by specialists. These are to be appointed for diseases of the ear, throat, genitourinary organs and orthopedics. The reason is given that for the first three such special skill in the use of instruments is required for diagnosis and operations that it can hardly be expected in one who also practices general surgery. Special departments are also to be created for nervous diseases and diseases of children, but specialists are not necessary for these appointments, which may be held by general physicians. The beds of the hospital are to be rearranged so as to provide increased accommodation for these specialties.

Medical Entomology

The secretary of state for the colonies has appointed an "Entomological Research Committee" for tropical Africa for the purpose of organizing and coordinating the investigations of the numerous insects which from time immemorial have been the bane of that country. The committee is publishing a valuable periodical called the *Bulletin of Entomological Research*. Arrangements have been made by which the committee will be kept in touch with the organizations for the study of entomology that exist both to the north, in the Soudan and Egypt, and to the south in Rhodesia and the South African states. The number of known species of insects in tropical Africa has increased enormously. According to Dr. Shipley in 1830 the number of insects described and named was under 50,000; by 1881 it had risen to 220,000; now the number has reached 450,000 and thousands more await classification and description in collections deposited in museums, where no one has had time to work them out. It is calculated that the yet uncaptured species run into millions. To promote the work of sorting and studying the life-cycles of these insects two entomologists have been despatched, one to East Africa and the other to West Africa. They will instruct the residents, especially the government servants, in the methods of collecting and studying ticks and insects and of preserving them for transmission home. So far as is known many large genera, such as Lepidoptera and Neuroptera, exert but little influence on human affairs.

New X-Ray Department of the London Hospital

A new *x*-ray department has been completed at the London Hospital and is now in use. The most modern equipment has been provided and neither trouble nor expense has been spared. In 1899 the rays were first used therapeutically in the hospital for the treatment of lupus vulgaris. Since then many changes have been made. The old platinum hammer break and accumulator have been replaced by a copper rod and mercury bath transformer. The coils now used are much

hea. er and the quality of the *x*-ray tubes has been considerably improved. Formerly exposures were given by time, that is, for so many minutes. Now Sabouraud's pastilles are used. They are flat discs of platino-cyanid on cardboard. When exposed to the rays their bright green color turns first to yellow, then to orange, and finally to red. The pronounced orange color is called the "B dose" and is taken as the standard. This dose causes temporary epilation without permanent alopecia and does not produce dermatitis. Hence its value in the treatment of tinea tonsurans. In carcinoma stronger doses are given. Usually these are filtered through a sheet of aluminum or leather so as to allow the passage of only the higher rays, thus obtaining a deeper reaction and preventing dermatitis. There are four cubicles in the department, each fitted with a separate installation. The walls of these cubicles which reach from floor to ceiling, are made of lead and iron one-fourth inch thick, faced on both sides with pine. In these are windows of lead glass for observation purposes. This glass has been thoroughly tested and is impervious to the passage of the rays. The whole of the installation, except the controlling and driving gear, is inside the cubicle. When the patient and apparatus have been suitably arranged the operator comes outside the cubicle, shuts the door and switches on the current. Any movement or change of expression of the patient can at once be detected through the window. If the operator opens the door the current is stopped automatically. When the necessary number of revolutions of the motor have been made the current similarly stopped and an electric lamp over the cubicle is illuminated, thus attracting the operator's attention should he for the moment have been called to another part of the room. By these arrangements it is believed that the intractable dermatitis with its consecutive cancer from which so many operators have suffered will be prevented. The number of patients treated daily in the department amounts to from 35 to 40.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, May 20, 1910.

Admission of Foreigners to the Concours of the Externship and Internship of Hospitals

Unlike certain other countries where foreigners not infrequently occupy university chairs, France does not permit foreigners to hold any post, no matter how modest, bestowed by the national government. The apparent exceptions presented by the positions of hospital extern and intern are accounted for by the fact that these places are bestowed, not by the national government, but by the Public Charities or the municipalities. The bestowal of these positions, however, has aroused protest recently. The question has just been discussed in the Réunion médico-chirurgicale des hôpitaux de Bordeaux. The society wisely admitted that the great number of the candidates enrolled for the concours of the externship and internship of hospitals must stimulate the zeal of all the competitors; that, moreover, an admission of foreign students would serve to disseminate the renown of French medical science in all parts of the world; and that, consequently, the higher patriotism would authorize this admission.

The Suppression of Fraud in Foods

In order to suppress fraud and to guarantee to producers and to honest retail dealers the protection which they deserve, the minister of agriculture has just taken two interesting measures. In the first place, each year at the end of November, there are to be collected at the mayor's office of each wine-growing commune two series of samples of the wines of that harvest. The first series is to be reserved for the departments of agriculture and finance, which cooperate in the suppression of frauds; the second is for the use of the judicial tribunals, in the expert examinations which may be ordered. Thus wines which are under suspicion may at any time be compared with authentic samples. The second innovation has to do with dealers in foodstuffs, who often have trouble through unwittingly selling adulterated foodstuffs. Hereafter the commercial organizations may nominate, subject to the approval of the prefect, an agent paid by themselves who, on requisition of the members, will take samples out of goods on their arrival at the transportation terminal. These samples, to the number of four, are to be ticketed, sealed, registered and deposited in a place designated by the association. If, later on, foodstuffs which are below standard are seized at the retail dealers, comparison with the samples will clear up the question of culpability.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, May 19, 1910.

Personals

At the annual meeting of the German laryngologic society a few days ago, the prize founded on the occasion of the seventieth birthday of Prof. B. Fraenkel, was awarded for the first time; it was given to Professor Killian of Freiburg for his notable work in laryngology.

The Siebel prize, given by the Senckenberg foundation in Frankfort a. M. for the best work on children's diseases or embryology published in the last four years, has been awarded to the Berlin pediatrist, Professor Finkelstein, for his investigations on alimentary intoxication.

Women Students

The number of women attending the Prussian universities in 1910 has risen to 2,824 as compared with 1,680 in 1908-09. The women students in the medical department numbered 266 as opposed to 188 in 1908-09.

The Number of Lepers

The number of lepers in the German empire at the end of 1909 amounted to 23 (1908: 25), of whom 18 were in Prussia, 4 at Hamburg, and 1 in Bavaria.

The Campaign Against Mosquitoes

As the destruction of the larvæ of mosquitoes in water can not be accomplished on certain lakes and ponds by the use of petroleum or the establishment of drainage on account of the cost, it is recommended by a ministerial decree, based on research by Professor Schilling in the institute of infectious diseases, to encourage the increase of the natural enemies of the mosquito larvæ. The so-called water beetle (the *dyticus*, *nepa* and *notonecta* species), the stickleback (*Gasterosteus*), the small water salamander (*Triton tacniatus*) and the larvæ of dragon flies are the best destroyers of mosquito larvæ. It is recommended to protect the enemies of the mosquito and to introduce them in pools where they are not present, especially during the winter. It is also important to destroy the mosquitoes which are hibernating during the winter. As mosquitoes in the beginning of winter resort to the cellar, stable, etc., and cling to the walls and ceiling, they can easily be smoked out of their resting places and killed with a good insect powder.

Museum for Infant Hygiene in Munich

The headquarters for the care of infants in Bavaria contemplates the establishment of a permanent museum for infant hygiene. The government has made the first contribution of $360 (1,500 marks) and has placed rooms at its disposal. The museum which will be the first of its kind in Germany is for the purpose of spreading information regarding the need and the prospects of the fight against the excessive infantile mortality among the lower classes of the population. The museum is to be simple and adapted to the common people and so organized that parts of it can be transported to other parts of Bavaria as traveling expositions or to illustrate lectures. The various departments comprise (1) infant hygiene, (2) the extent and causes of infant mortality, (3) the development, structure and function of the infant's body, (4) infantile nutrition, (5) care of infants, (6) children's diseases, (7) vaccination, (8) milk, (9) public and private care.

Mothers' Home at Hamburg

The Hamburg league for the protection of mothers contemplates the foundation of a small home for mothers, especially with the aid of a small legacy of $12,000 (50,000 marks) that has fallen to it. The home is to possess at most 20 beds. It will be limited to economic aid and not serve like the home in Bremen for charitable purposes. For instance, the three months' gratuitous care of mother and child as is the custom in Bremen will not be provided for, but the mother will be given the opportunity to earn her way by the provision of sewing, washing and similar work. Homeless pregnant women, for the most part illegitimate mothers, are received. Delivery will occur in the hospital. After dismissal from the hospitals which takes place twelve days after delivery, puerperal women in need of convalescent care will be received into the home for mothers. The price for bed and room is 8 cents (30 pfennigs), for board 12 cents (50 pfennigs) per day. Each woman must furnish her own crib.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, May 23, 1910.

Housing of the Poor

To provide cheap and healthful housing for the poor, a law has been passed in Austria which authorizes the government to devote a sum of 6,000,000 kronen (about $1,500,000) every year from 1910 till 1920 for the purpose of giving loans free from all duties and interest to such building-societies as will erect small lodging-houses. The idea has been much agitated by the Society for Prevention of Tuberculosis. The management of the fund mentioned above will be in the hands of a joint committee, selected by the government and the society. Special regulations will be imposed on the building companies. Each room will have to contain at least 30 cubic meters of air-space per person living in it. No back yard will be allowed of less than 6 meters' depth, thus giving a clear space of 12 meters (13½ yards) between two back windows of opposite houses. The houses will be two stories high. Up-to-date water-closets, kitchens, and arrangements for dust-removal are also required. The latter point is especially well worth mentioning, for it is a constant outcry of the hygienic authorities in this city that the present mode of removing household refuse here is shamefully primitive. No home work except domestic household labor and light sewing will be allowed in these lodgings. Playgrounds for children, kept free from dust, are also to be provided. It is intended to give the loans in the first place for the relief of the population in Vienna, Prague, Graz and a few industrial cities where tuberculosis is present.

The First Fight Between Practitioners and Krankenkasse

Owing to the "social reform" bill which threatens the profession with very severe losses of the material whence to obtain private practice, a preliminary trial has been made to see whether the organization of our profession is efficient enough for the coming events. In industrial towns in Lower Austria, differences of opinion as regards remuneration of clubwork, as well as to the eligibility of a member to the club, prompted the practitioners to refuse all work for the *Krankenkasse*. The patients were informed that they would be treated at reduced rates, but not on behalf of the *Kasse*. The managing board of the club (*Kasse*) tried in vain to obtain the services of other doctors; the medical organization proved effective and thus the club had to make its terms with the practitioners. It was agreed that, in future, appointments of doctors will be negotiated through the medical council, thus insuring uniform rates of payment and recognition of the right of the practitioner to apply against orders of the board of the club to the Council. The result of this fight shows that if the social reform bill should become law the profession has it in its power to turn it into a weapon for its own good.

Pharmacology

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

HYMOSA

W. A. Puckner and W. S. Hilpert

Frequent requests for information regarding the composition of hymosa, manufactured by the Walker Pharmacal Co., St. Louis, and a perusal of the extensive and nostrum-like advertising the product is receiving, made the chemical examination of the preparation seem desirable. If the label is to be believed, hymosa has been of use in "acute and chronic muscular and articular rheumatism, gout, sciatica, lumbago, pleurodynia and neuralgia, whether due to uric acid diathesis or not . . . "

The composition of hymosa as given by the proprietors is set forth in the following statement:

". . . Hymosa, in which the remedies Frangula, Actea Spicata, Stellaria Media, Franciscea Uniflora, Rhus Toxicodendron, Passiflora Incarnata, Phytolacca Decandra and Echinacea Angustifolia are combined in the proportions which experience has shown will obtain the quickest and best results without any of the stomach and heart complications so often following the administration of salicylic acid."

"Contains no Salicylic Acid."

Thus the explicit statement is made that hymosa contains certain vegetable drugs (most of them obsolete and valueless) and that it does not contain salicylic acid. By inference the claim repeatedly is made that the nostrum does not contain any salicylates.

". . . Hymosa has achieved most remarkable results in overcoming rheumatism in cases where salicylates have been tried in vain . . ."

"Salicylic acid was not successful in this case of rheumatism of the stomach."

"Negative results from salicylates—Hymosa cures."

". . . the salicylates didn't help? Then we must try Hymosa."

Still harping on the undesirability of salicylates and the value of hymosa the advertising pamphlets state:

"Salicylic Acid Replaced. The Use of This Dangerous Agent in Rheumatism Obviated."

"It seems that the use of the dangerous and ineffective salicylic acid will soon be given up and hymosa take its place."

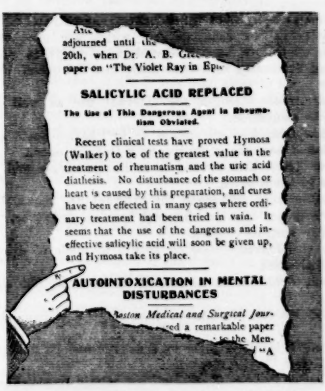
"Former methods of treating rheumatism . . . have been very unsatisfactory . . . because of the heart and stomach difficulties brought on by salicylates of which most rheumatism remedies are composed."

"Could not tolerate the salicylates."

Finally in a letter issued to physicians we are told:

". . . you will find hymosa to possess prompt and positive curative action with the additional advantage of avoiding the heart and stomach complications, which the salicylates too often cause."

It is evident from the above quotations, in which the salicylates are denounced specifically or by implication, and from the label which states that no salicylic acid is present, that the exploiters of the nostrum deliberately intended to give the impression that hymosa is free from salicylates or salicylic acid and contains only the vegetable or plant drugs enumer-


adjourned until the
20th, when Dr. A. B. Gre
paper on "The Violet Ray in Epi

SALICYLIC ACID REPLACED

The Use of This Dangerous Agent in Rheumatism Obviated.

Recent clinical tests have proved Hymosa (Walker) to be of the greatest value in the treatment of rheumatism and the uric acid diathesis. No disturbance of the stomach or heart is caused by this preparation, and cures have been effected in many cases where ordinary treatment had been tried in vain. It seems that the use of the dangerous and ineffective salicylic acid will soon be given up, and Hymosa take its place.

AUTOINTOXICATION IN MENTAL DISTURBANCES

Boston Medical and Surgical Jour-
ed a remarkable paper
the Men-
"A

Reproduction (reduced) of an advertisement of Hymosa. This indicates the attempt made to convey, by implication, the idea that the salicylates are absent from Hymosa.

ated. The very fact that the proprietors make such repeated efforts to give the impression that hymosa is free from salicylates is in itself sufficient to arouse suspicion and hence in the examination particular attention was given to the detection of salicylic acid or salicylates with the following results:

Examination.—Hymosa as purchased on the market is a dark brown liquid with an odor of sassafras and a rather sweetish taste, reacting acid to litmus. Qualitative tests having indicated the presence of salicylate, iodid, sodium, potassium, alcohol and some organic matter, presumably sugars and some plant extractives, these were determined

quantitatively.[1] It was found that a part of the salicylate was present as free salicylic acid and part in a combined form. The sodium determinations indicated that all the salicylate, excepting that in the form of free salicylic acid, was present as sodium salicylate. From the results of the potassium estimations, it was evident that the iodin was present in the form of potassium iodid.

From the results of the analysis it is believed that the preparation has approximately the following composition:

Salicylic Acid	0.32 gm.
Sodium Salicylate	1.15 gm.
Potassium Iodid	0.32 gm.
Sugars and extractives	4.60 gm.
Alcohol, U. S. P.	16.86 c.c.
Water to make	100.00 c.c.

These results indicate that hymosa is essentially a solution containing salicylic acid, sodium salicylate, potassium iodid, alcohol, sugars and plant extractives in the proportions given above, and show that the various statements referred to, regarding the absence of salicylic acid and salicylates are misleading and untrue. It further illustrates the repeatedly demonstrated fact that nostrums exploited as wonderful and new discoveries are new in name only—and whatever therapeutic value they possess depends on old and tried medicinal agents.

EDITORIAL NOTE: In describing the methods employed by the manufacturers of Manola in exploiting their product, attention was called to the fact that the Manola Company was reported as being a subsidiary affair of the Luyties Homeopathic Pharmacy Company of St. Louis. It is reported that this same company also operates the Walker Pharmacal Company, which exploits hymosa and pas-avena.

REVISION OF THE PHARMACOPEIA

Report of the Committee of the Section on Dermatology

INDICATION OF EXTERNAL DOSAGE

We respectfully offer the following suggestions:

Articles in the Pharmacopeia which are used externally should, we believe, have indicated the strength in which they are used externally as well as their internal doses. For example:

Boric Acid.—Strength for external use as well as doses should be mentioned.

Carbon Dioxid.—This should be in Pharmacopeia and mention should be made of its use as a freezing agent.

Picric Acid.—This should be in Pharmacopeia and strength for use in burns given.

Salicylic Acid.—Strength for external use should be given, say from 2 per cent. in ointment base as antiseptic, up to 20 or 25 per cent. as caustic.

Sulphurous Acid.—Mention should be made of external use in skin diseases.

Tannic Acid.—Some indication of external use should be given.

Silver Nitrate.—Indication that it is a caustic should be given.

Arsenic Trioxid.—Its use as a caustic and its dosage should be indicated.

Balsam of Peru.—Its external use should be indicated.

Bismuth Subnitrate.—Its external use should be indicated.

Cantharis.—Its external use and dosage should be mentioned.

Guaiacol.—Its external use and dosage should be mentioned.

Mercuric Chlorid.—Use as antiseptic and caustic should be mentioned and strength of solutions given.

Oleum Cadini.—Strength for external use should be given.

Pix Liquida.—Strength for external use should be given.

Pyrogallol.—External use and dosage should be mentioned.

Resorcinol.—External use and dosage should be mentioned.

Sulphur.—External use and dosage should be mentioned.

Zinc Chlorid.—External use as caustic should be mentioned.

1. The details of the analysis will be sent on receipt of a stamped, addressed envelope; they will also be published in the annual report of the Chemical Laboratory.

SUBSTANCES RECOMMENDED TO BE ADDED

Adeps anserini (goose grease) should be added.

Liquor guttæ perchæ should be added.

Chaulmoogra oil should be added and its internal and external dosage given.

Some additional salts of mercury, from the many now in use, especially in the treatment of syphilis, should be added. We suggest as eligible salts the following: benzoate, cyanid, salicylate, succinimid. These are among those most frequently used for hypodermic medication.

Liquor alumini acetatis is a much-used preparation in dermatology which might well be added to the Pharmacopeia.

Potassa sulphurata, much used in dermatology, should be added and its external dosage given.

There should be some powder in the Pharmacopeia of brownish pink tinge with which to make external applications of flesh color. Calamine is widely used for that purpose now and because of its wide use it is the most eligible powder for this purpose. The objection to calamine is that it is not standardized. We would suggest that if possible some standard color or composition for calamine should be adopted and that it be added to the Pharmacopeia. Zinc oxid, if properly colored, would be a better powder than calamine because it is lighter. A powder of the proper pinkish tint can be made by the addition of 0.3 per cent. of jeweler's rouge. The addition of this or some other artificially colored powder might possibly be made to the Pharmacopeia as a standard flesh-colored powder. It is necessary that the pigment in such a powder be insoluble in ordinary solvents.

Coal-tar (pix carbonis) should have official recognition.

A soluble, non-irritating salt of arsenic for hypodermic use should be given in the Pharmacopeia. Sodium cacodylate seems the most eligible.

The soft soap of the Pharmacopeia is not a good soap for therapeutic use because of its disagreeable odor of linseed oil. There should be an official soft soap made with olive oil or cotton-seed oil which would avoid this disagreeable odor.

The same objection to the odor of soft soap made with linseed oil holds against the present linimentum saponis mollis and if an olive oil or cotton-seed oil soft soap could be adopted in the Pharmacopeia it should be used in making the liniment of soft soap for therapeutic purposes.

The name "tincture of green soap" as a synonym of "linimentum saponis mollis" should be given in the Pharmacopeia because of its almost universal use.

Emplastrum acidi salicylici 10 per cent. is used in dermatology and might well be made official.

SUBSTANCES RECOMMENDED TO BE DROPPED OR REDUCED

The various forms of external applications used by dermatologists are well covered in the Pharmacopeia and National Formulary. Many local applications are included which dermatologists do not use but the dropping of which we do not deem it proper to recommend because of their possible use in other departments of medicine.

In general we find little use for the mixed ointments containing active ingredients, as there is the same objection to their use that obtains against all ready-made prescriptions. As a rule the proportions of active ingredients in the official ointments are stronger than these medicaments are commonly used in dermatology.

Unguentum hydrargyri dilutum should be dropped. It is confused with 50 per cent. mercury ointment; and the preparation of dilute mercury ointments from the 50 per cent. ointment is so easy that the dilute official ointment is of no use.

Unguentum hydrargyri nitratis, 10 per cent., is too strong; a better preparation would be 5 per cent.

Unguentum hydrargyri oxidi flavi, 10 per cent., is too strong; a better ointment would be 5 per cent.

Unguentum hydrargyri oxidi rubri, 10 per cent., is too strong; a better one would be 5 per cent.

Unguentum picis liquidæ, 50 per cent., is very much too strong. It should be reduced to at least 20 per cent.

Unguentum potassi iodidi should be dropped.

Unguentum sulphuris, 15 per cent., is too strong. It should not be more than 10 per cent.

Unguentum zinci stearatis, 50 per cent., is, so far as we know, not used by dermatologists and we know no reason of its inclusion in the Pharmacopeia.

Of the cerates, ceratum is a good base, though we know no reason why it should not as well be made with white petrolatum 70 per cent. or benzoinated lard 70 per cent., instead of white petrolatum 20 per cent., and benzoinated lard 50 per cent.

The other cerates in the Pharmacopeia have practically no use in dermatology.

Unguentum is a satisfactory base.

Of the medicated plasters, emplastrum plumbi and emplastrum hydrargyri are the only ones which have any use in dermatology.

W. A. PUSEY, Chicago,
M. B. HARTZELL, Philadelphia,
GEORGE T. JACKSON, New York,
Committee.

Correspondence

Age and Exercise

To the Editor:—You were kind enough to publish (Aug. 28, 1909, p. 730) a letter from me on the subject above cited, in which I took strong ground in favor of the proposition that "most men lie down and die, not knowing what they are capable of, either mentally or physically." This letter had been called out, you may remember, by an editorial of yours under the title "The Septuagenarian Pedestrian" which, of course, referred to Mr. Weston and his walk from New York to San Francisco. I thought when I wrote you, nine months ago, that perhaps sometime I should try to demonstrate in my own body the truth of my assertions. Accordingly, a week ago last Thursday (May 12, 1910), I set out to walk from Newark, N. J., to Philadelphia, intending to accomplish the feat in twenty-four hours if possible. I lost my way during the night, and by so doing, added several miles to the walk, so that I calculated that in twenty-two hours I had walked over ninety miles, when I reached the city line of Philadelphia. In two months from to-morrow I shall be 59 years old. The principal reason for undertaking the walk was that I wished to demonstrate experimentally that people over middle age can improve their physical condition as well as their mental powers, as they grow older, if they really wish to do so. Mr. Weston's career goes a long way in support of the above assertion. He walked from Portland, Maine, to Chicago in 1907 in sixteen and one-half hours' less time than it had taken to accomplish the same feat forty years before.

The walk that he has just completed from Los Angeles to New York is not only the greatest feat of its kind on record; but far better than Mr. Weston ever did or was capable of doing in the earlier years of his life. So far from this man finding himself broken down and ready to die at 70 years of age, he seems to be capable of doing more than he ever could have done before.

Now why is this? Is it a miracle or a reversion of Nature? Or is there some fake about it? The answer is very plain and simple. It is merely a case in which a man has gradually developed great powers of physical endurance and has conserved them by abstinence from liquor and tobacco and by great moderation in diet. So firmly convinced was I that nearly any one could effect a similar improvement in his powers by following a similar regimen that I determined to try some experiments on myself. I had stopped the use of tobacco and all forms of alcoholic drink some years ago, and since I have been eating whole wheat bread and bran bread my general health and my powers of endurance have notably improved. For twenty years before beginning to eat whole wheat products I was so constipated that my bowels never moved without medicine. When I began to have natural movements again I began to feel like a different man, so much brighter and more cheerful and more ready for work or for play. I could not help observing that my capacity for all sorts of prolonged exertion had greatly augmented.

Finally, to put the matter to the test, I determined on an endurance walk for twenty-four hours and chose the journey from Newark to Philadelphia as a good test. That I was able to accomplish this feat at my age with only some stiffness of the muscles and some blisters, I attribute entirely to my diet and my abstemious habits, added to the fact that I am and always have been a staunch advocate of walking as a wholesome and delightful pastime.

Yet I have never before attempted an endurance test of any description. Now I feel so elated over the success of my first attempt that I may start out again some time to see what I can do, and when I am as old as Mr. Weston I may perhaps have improved as much over my present walking capacity as he has improved in the last twelve years. It is quite needless for people to give up doing anything that is to be done because they are approaching 70. That is really the age when they should be in their prime mentally and physically.

Most people who have accomplished anything worth while have worked long after they were 70. Yet the sad part of the matter is that they—at least many of them—have been obliged to do their work in spite of bodily weakness and the so-called infirmities of age, whereas had they known how to take care of their bodies and followed out my simple rules of life, they would have enjoyed their work at 70 as much as they did at 50.

As Parkes said years ago, "our fate is in our own hands," and it is because I am trying to teach people that truth that I am so much pleased that I have been able to demonstrate it, in great part at least, in my own case; for people will, I hope, now begin to believe that I know whereof I speak.

RICHARD COLE NEWTON, Montclair N. J.

Hypertension and Treatment

To the Editor:—From my standpoint, the medical profession is much indebted practically to Dr. Miller's article in the last issue of THE JOURNAL.* The prevailing fashion nowadays is, so soon as hypertension is revealed, either by palpation of the radial or by means of the finger and the sphygmomanometer, to recur to medication of an active sort to neutralize the condition, and this is done not only when there are unpleasant or it may be threatening symptoms, but also when those that exist are of very mild type, or, indeed, none is present. The condition is there and that is all. It has been clear to me and others for a long while, that hypertension may be a wholly conservative process, and on that account should not be interfered with, except for good and sufficient reasons, and then only in a judicious and temporary way. Again, it is also evident that the cause of symptoms is not always simple, but rather a combination of factors which require close attention to interpret correctly. To medicate actively before one understands fully what one is doing is not useful. For my part I am satisfied that harm has been done by too great reliance on the mere reading of the sphygmomanometer. Many things should be considered before the height of the column of mercury becomes a reliable guide as to treatment. It is not essential, however, for the attending physician to be an expert in the application of the instrument in order to give it proper interpretation, but it is necessary that the instrument should be properly used. This is manifest in the same way that is true of the ophthalmoscope or laryngoscope. It is also true now of many laboratory researches in hospital or consulting room, which are made with special instruments.

BEVERLEY ROBINSON, New York.

Rare Fetal Monstrosity

To the Editor:—In THE JOURNAL, May 28, 1910, page 1786, is a report of a case of "Rare Fetal Monstrosity" by Dr. Aranow, in which he says he has found but one case reported in medical literature of "entire absence of abdominal parietes" in a new-born child. I call attention to a case reported by me in *American Medicine*, vol. ii, page 208, the case being almost identical with the one mentioned by Dr. Aranow, the chief difference being that in my case there was entire absence of sexual organs and anal aperture.

H. H. LOVELAND, M.D., Republic, Mich.

* May 21, 1910.

Table of Contents Misleading in Its Reference to Chinosol

To the Editor:—In THE JOURNAL, May 28, containing the report on Chinosol by the Council on Pharmacy and Chemistry, the table of contents (second cover page) is so worded as to have caused an entirely incorrect interpretation. The report of the Council states that Chinosol is non-poisonous and that it is an intensely powerful antiseptic, much stronger than phenol (carbolic acid) and even stronger than bichlorid. It is as an antiseptic that we are introducing Chinosol; thus as a matter of justice to Chinosol and to us, we ask that you publish this letter.

THE CHINOSOL CO., New York City,
by Charles Roome Parmele, President.

Warning Against an Impostor

To the Editor:—A man pretending to be my brother is traveling through the south and west borrowing money from physicians. If you can warn the profession against such an impostor you would, I am sure, be doing a public service.

L. EMMETT HOLT, New York.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

DELAWARE: Regular, Dover, June 21; Homeopathic, Wilmington, June 21. Secretary of the Medical Council, Dr. Henry W. Briggs, Wilmington.

KANSAS: Scottish Rite Temple, Kansas City, June 14. Sec., Dr. F. P. Hatfield, Olathe.

MARYLAND: 1211 Cathedral St., Baltimore, June 15. Sec., Dr. J. McP. Scott, Hagerstown.

MINNESOTA: State University Laboratories, Minneapolis, June 14-17. Sec., Dr. W. S. Fullerton, American National Bank Bldg., St. Paul.

MISSOURI: St. Louis and Kansas City, June 13-15. Sec., Dr. Frank B. Hiller, Jefferson City.

NEW JERSEY: State House, Trenton, June 21. Sec., Dr. H. G. Norton.

NEW YORK: Albany, June 28-July 1. Chief of Examinations Division, Mr. Charles F. Wheelock, Albany.

NORTH CAROLINA: Wrightsville, June 15. Sec., Dr. Benjamin K. Hays, Oxford.

PENNSYLVANIA: Regular, Philadelphia and Pittsburg, June 21; Homeopathic, Philadelphia, June 21; Eclectic, Harrisburg, June 21. Secretary of the Medical Council, Mr. Nathan C. Schaeffer, Harrisburg.

OHIO: Columbus, June 13-15. Sec., Dr. George H. Matson, State House.

SOUTH CAROLINA: State House, Columbia, June 14. Sec., Dr. Harry H. Wyman, Aiken.

TEXAS: House of Representatives, Austin, June 28-30. Sec., Dr. M. E. Daniel, Honey Grove.

VIRGINIA: Richmond, June 21-24. Sec., Dr. R. S. Martin, Stuart.

WYOMING: Laramie, June 22-24. Sec., Dr. S. B. Miller.

Wisconsin January Report

Dr. John M. Beffel, secretary of the Wisconsin State Board of Medical Examiners reports the written examination held at Milwaukee, Jan. 12-15, 1910. The number of subjects examined in was 21; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 16, of whom 14 passed, including 1 osteopath, 1 failed and 1 was conditioned. Twenty-six candidates were licensed through reciprocity. The following colleges were represented:

PASSED		
College	Year Grad.	Per Cent.
College of Physicians and Surgeons, Chicago	(1909)	80
Northwestern University Medical School	(1909)	79
Hamline University	(1909)	87
Jefferson Medical College	(1909)	84
Marquette University	(1908) 75, 77; (1909) 75, 75, 77,	78
Wisconsin College of Physician and Surgeons	(1909)	82
McGill University, Canada	(1909)	89
University of Heidelberg, Germany	(1905)	85

FAILED		
Marquette University	(1909)*	

LICENSED THROUGH RECIPROCITY		
College	Year Grad.	Reciprocity with
George Washington University	(1905)	Maryland
Northwestern Univ. M. School (2, 1904)	(1907) (1908)	Illinois
College of Physicians and Surgeons, Chicago (1904) Maryland; (3, 1908) (1909) Illinois.	(1902)	Minnesota
Bennett Coll. of Ec. Med. and Surgery	(1904)	Missouri
Rush Medical College, (1875) Minnesota; (1901) Illinois; Missouri; (1906) Illinois.		(1904)
Hering Medical College	(1902)	Colorado
Iowa Medical College, Eclectic	(1883)	Illinois
University of Iowa, College of Medicine	(1890)	Iowa
College of Physicians and Surgeons, Baltimore	(1908)	Virginia
Johns Hopkins University	(1908)	Maryland
St. Louis University	(2, 1908)	Illinois
Woman's Medical College of Pennsylvania	(1908)	Maryland
Wisconsin College of Phys. and Surgeons	(1897)	Iowa
University of Toronto, Canada	(1909)	Iowa

* Percentage not given.

Connecticut March Report

Dr. Charles A. Tuttle, secretary of the Connecticut Medical Examining Board, reports the written examination held at New Haven, March 8-9, 1910. The number of subjects examined in was 7; total number of questions asked, 70; percentage required to pass, 75. The total number of candidates examined was 19, of whom 14 passed and 4 failed and 1 withdrew. The following colleges were represented:

PASSED		
College	Year Grad.	Per Cent.
Yale Medical School	(1908) 81.9; (1909) 79.7, 84.8,	89.3
Georgetown University	(1907) 81.9; (1908) 78,	81.3
Johns Hopkins University	(1906)	84.5
Harvard Medical School	(1903)	75.8
Dartmouth Medical School	(1909)	85.3
Cornell University Medical College	(1905)	87.3
Long Island College Hospital	(1907)	83.7
Jefferson Medical College	(1909)	75.8
University College of Medicine, Richmond	(1903)	78

FAILED		
Howard University	(1909)	69
Baltimore Medical College	(1909)	68.5, 68.9, 71

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

PROPHYLACTIC USE OF ANTITETANIC SERUM

To the Editor:—Please publish a list of articles on the use of antitetanic serum as a prophylactic measure, with names of authors.

H. J. SCHERCK, St. Louis.

ANSWER.—The following articles deal with this subject:

Scherck: *Therapeutic Gazette*, November, 1904.

Anders, J. M., and Morgan, A. C.: Tetanus, THE JOURNAL A. M. A., July 29, 1905, p. 314.

King, W. E., and McClintock, C. T.: Oral Administration of Antitoxins for Prevention of Diphtheria, Tetanus and Possibly Sepsis, *Jour. Infect. Dis.*, Oct. 30, 1906; abstr. in THE JOURNAL A. M. A., Nov. 24, 1906, p. 1766.

Terrier, F., and Mercadé, S.: Failure of Preventive Injection of Antitetanus Serum in Two Cases, *Rev. de chir.*, xxvii, No. 1.

Busch, M.: Preventive Treatment of Tetanus by Antitoxin, *Arch. f. klin. Chir.*, lxxxii, No. 1.

Suter, F. A.: Local Subcutaneous and Subdural Application of Antitetanus Serum and Prophylaxis of Tetanus, *Beitr. z. klin. Chir.*, lii, No. 3; abstr. in THE JOURNAL A. M. A., Nov. 23, 1907, p. 1811.

Labbé, L.: Preventive Antitoxin Treatment of Tetanus, *Bull. de l'Acad. de méd.*, June 30, 1908.

Underwood, J. H., and Reading, G. E.: Prevention and Treatment of Tetanus, THE JOURNAL A. M. A., Aug. 22, 1908.

Rowan, C. J.: The Prophylactic Use of Tetanus Antitoxin, THE JOURNAL A. M. A., Feb. 12, 1910, p. 533.

Dorsey, F. B.: Antitetanic Serum in Tetanus, THE JOURNAL A. M. A., March, 26, 1910, p. 1075.

Bar, E.: Preventive Serotherapy of Tetanus, *Corr.-Bl. f. Schweizer Aerzte*, April 10, 1910; abstr. in THE JOURNAL A. M. A., May 28, 1910, p. 1830.

Wiedemann, A.: Serotherapy of Tetanus, *München. med. Wchnschr.*, April 12, 1910; abstr. in THE JOURNAL A. M. A., May 21, 1910, p. 1731.

HAIRY TONGUE

To the Editor:—In THE JOURNAL, July 24, 1909, p. 324, is a short abstract (No. 81, Arrowsmith, H.: *Laryngoscope*, July, 1909) on black hairy tongue, or glossitis nigra, which, however, does not speak of the treatment. Please give me any information or references available on the pathology and treatment of the condition.

HARRY S. BULL, Auburn, N. Y.

ANSWER.—Hairy tongue is a rare affection, consisting of an overgrowth of the epithelium covering the filiform papillæ, forming a growth that closely resembles tendrils, lashes, seaweed or hairs, and has been in some cases compared to feathers. The hypertrophied epidermis is colored dark brown or black, the coloring being variously attributed to colors produced by mold or other microorganisms or to staining of the epithelium, sometimes intentionally in the case of hysterical patients. No symptoms are usually produced beyond a mawkish taste and occasionally pains. In Curtis' case the pain was quite pronounced. The condition may persist for a variable time, but as a rule eventually disappears spontaneously. Treatment seems to be of little avail. The patch may be painted with 2 per cent. salicylic acid or with diluted lactic acid; or a solution of phenol, 1 in 60, may be rubbed in with a clean piece of cloth, three or four times a day. Reference may be made to Butlin ("Diseases of the Tongue," p. 145), Stelwagon ("Diseases of the Skin," Edition 5, p. 1119) and Pusey ("Principles and Practice of Dermatology," Edition 1, p. 996). The latter authors give full bibliographies. Blegvad (*Ann. Otol., Rhinol. and Laryngol.*, September, 1908, p. 753) has an exhaustive article on the subject with bibliography.

METHOD OF ESTIMATING THE AMMONIA COEFFICIENT OF URINE

To the Editor:—Dr. Adam H. Wright, of the University of Toronto, speaking about pernicious vomiting of pregnancy, (THE JOURNAL, May 7, 1910, p. 1503), refers to Dr. Whitridge Williams of Baltimore, as having demonstrated, by chemical examination of the urine, a "decrease in the amount of nitrogen excreted as urea, and an increase in the amount excreted as ammonia." Can you refer me to a description of these chemical tests? G. N. P.

ANSWER:—Briefly speaking, the method which has generally been used in Toronto for the estimation of the ammonia coefficient may be described as follows: (1) estimation of the total nitrogen by Kjeldahl's method; (2) estimation of ammonia by Folin's method; and (3) division of ammonia nitrogen by total nitrogen to get the ammonia coefficient. It is difficult to carry out the Kjeldahl method in an ordinary office, but Prof. J. B. Leathes, of the Department of Pathological Chemistry, University of Toronto, has simplified the process to such an extent that any physician may use it. Professor Leathes estimates the ammonia nitrogen by a method introduced by Ronchèse and Malfatin about two years ago, which takes less time than Folin's method. Dr. F. W. Rolph furnishes the following description of the methods now used in the laboratory of the University of Toronto:

The combustion of the nitrogenous substances in urine and the conversion of this nitrogen into ammonium sulphate by the action of strong sulphuric acid can be accurately effected if a smaller quantity than that usually prescribed is taken, in a test-tube, in any room without any inconvenience if the following arrangements are made:

With a pipette exactly 1 c.c. of the urine is introduced into a test-tube made of Jena glass, or some other equally resistant glass. Two or three times this volume of strong, pure sulphuric acid is added, and a few milligrams of copper sulphate or copper wire. The tube is then set in a holder obliquely over a small Bunsen flame, and an inverted flask is held over the mouth of the tube by another holder fixed to the same stand. This flask contains 1 or 2 c.c. of strong caustic alkali solution and the inside of the flask has been moistened all around with this alkali. The flask can be kept cool by placing on it a piece of wet filter-paper, and by keeping the paper moist by means of a siphon thread leading from a vessel of water. The strongly acid and offensive fumes that are given off from the mouth of the test-tube may in this way be completely condensed in the flask, and absorbed by the alkali without any escape into the air of the room. The combustion is usually finished in about twenty minutes, and the amount of ammonia found can be determined either by distillation or a current of air as usually done.

The formalin method of estimation of ammonia nitrogen introduced by Ronchèse, Malfatin and others is as follows:

Take 20 c.c. of urine. Dilute with water and add some crystals of neutral potassium oxalate and a few drops of alcoholic solution of phenolphthalein. Titrate with decinormal caustic soda until a definite red tinge appears. Now add to the urine 2 c.c. of previously neutralized commercial formalin. In a few seconds the pink colorration of the mixture disappears. This is due to the fact that the ammonia present in the urine combined with acids has united as a condensation reaction with formaldehyd as hexamethylenamin. Thus the acid which was previously combined with this ammonia base has been set free, causing the disappearance of the pink color. Further titration is now carried out with the same decinormal caustic soda solution, until the pink color reappears.

Each cubic centimeter of decinormal soda used in this second titration represents 0.0014 gm. of nitrogen in the form of ammonia.

EXAMPLE.—Amount of urine in 24 hours = 1500 c.c.
No. of c.c. of n/10 soda used in 2d. titration = 8.
20 c.c. of urine were used for testing.
∴ 8/20 × 1500/1 × .0014/1 = 0.84 gm. of ammonia nitrogen in 24 hours.

Or if we want to find the amount of ammonia nitrogen in 100 c.c.
8/20 × 100/1 × 0.0014/1 = .056.
Now if the total nitrogen were 15 gm.
The nitrogen in 1500 c.c. urine would be 15 gm.
The nitrogen in 1 c.c. urine would be 15/1500
The nitrogen in 100 c.c. urine would be 15×100/1500 = 1 gm.
∴ the ammonia nitrogen would be to the total nitrogen as 5.6 to 100
∴ ammonia coefficient = 5.6.

The Public Service

Medical Department, U. S. Army

Changes for the week ended June 4, 1910:

Huntington, P. W., capt., detailed for duty in the Bureau of Navigation, Philippine Islands.

Ireland, M. W., Howard Deane C., majors, detailed to represent the Medical Department of the Army at the meeting of the American Medical Association at St. Louis, Mo., June 7-10, 1910.

Van Poole, Gideon McD., capt., detailed as chief surgeon during the military tournament at Chicago, during the month of July, 1910.

Owen, Leartus J., capt., detailed as sanitary officer during the military tournament at Chicago, during the month of July 1910.

Cassaday, George H., dental surgeon, relieved from temporary duty at Fort Rosecrans, Cal., and to return to Presidio of Monterey, Cal., for duty; when his services are no longer needed at the latter post, will stand relieved and will proceed to Army General Hospital, San Francisco, Cal., for duty.

Napier, Edward L., 1st lieut., M. R. C., granted 10 days' leave of absence.

Casaday, George H., dental surgeon, left from duty at Fort Rosecrans, Cal., en route to Army General Hospital, San Francisco, Cal., for duty.

The following named officers of the Medical Reserve Corps, having completed course at Army Medical School, have been ordered to stations designated: Casper, Joseph, 1st lieut., Du Pont, Del., Dept. of the East; Sheep, William L., 1st lieut., Ethan Allan, Vt., Dept. of the East; Davis, William C., 1st lieut., Ethan Allen, Vt., Dept. of the East; Knox, Howard A., 1st lieut., Fort Hancock, N. J., Dept. of the East; Beeuwkes, Henry, 1st lieut., Fort Jay, N. Y., Dept. of the East; Crum, Wayne H., 1st lieut., Madison Barracks, N. Y., Dept. of the East; Carr, William B., 1st lieut., Fort Monroe, Va., Dept. of the East; Holmes, Robert W., 1st lieut., Plattsburg Barracks, N. Y., Dept. of the East; Darby, Taylor E., 1st lieut., Fort McPherson, Ga., Dept. of the Gulf; Davis, Arthur O., 1st lieut., Fort Oglethorpe, Ga., Dept. of Gulf; Beery, Harry R., 1st lieut., Fort Benjamin Harrison, Ind., Dept. of the Lakes; Mount, James R., 1st lieut., Fort Sheridan, Ill., Dept. of the Lakes; Demmer, Charles C., 1st lieut., Fort Thomas, Ky., Dept. of the Lakes; Bowen, Albert S., 1st lieut., Fort Snelling, Minn., Dept. of Dakota; Etter, Harry B., 1st lieut., Fort Snelling, Minn., Dept. of Dakota; Fisk, Owen C., 1st lieut., Fort Crooke, Neb., Dept. of Missouri; Fletcher, John P., 1st lieut., Fort D. A Russell, Wyo., Dept. of Missouri; Ferenbaugh, Thomas L., 1st lieut., Fort Des Moines, Iowa; Dept. of Missouri; Burket, John A., 1st lieut., Fort Riley, Kan., Dept. of Missouri; Kramer, Floyd, 1st lieut., Fort Robinson, Neb., Dept. of Missouri; Fox, James S., 1st lieut., Fort Sam Houston, Tex., Dept. of Texas; Aydelotte, John T., 1st lieut., Fort Sam Houston, Tex., Dept. of Texas, relieving First Lieutenant Albion McD. Coffey; Cook, George W., 1st lieut., Fort Douglas, Utah, Dept. of Colorado; Johnson, Thomas H., 1st lieut., Fort Baker, Cal., Dept. of California; King, Charles T., 1st lieut., Presidio of Monterey, Cal., Dept. of California; Holmberg, Carl C., 1st lieut., Presidio of San Francisco, Cal., Dept. of California; Kremers, Edward D., 1st lieut., Presidio of San Francisco, Cal., Dept. of California; Hill, Felix R., 1st lieut., Fort George Wright, Wash., Dept. of the Columbia; Woodson, Thomas D., 1st lieut., Vancouver Barracks, Wash., Dept. of the Columbia; McCornack, Condon C., 1st lieut., Vancouver Barracks, Wash., Dept. of the Columbia; DeVoe, Ralph G., 1st lieut., Fort Worden, Wash., Dept. of the Columbia; Jones, Edgar C., 1st lieut., Fort Liscum, Alaska, Dept. of the Columbia, relieving Captain John A. Clark, Medical Corps; Allen William H., 1st lieut., Fort Slocum, N. Y.; Jones, Glenn L, 1st lieut., Fort McDowell, Cal.; Weed, Mark D., 1st lieut., Walter Reed General Hospital, Takoma Park, D. C.; McAlee, Larry R., 1st lieut., Army and Navy General Hospital, Hot Springs, Ark.; Welles, Edward M., Jr., 1st lieut., Army General Hospital, San Francisco, Cal.; Napier Edward L., 1st lieut., Army General Hospital, San Francisco, Cal.; Reynolds, Royal, 1st lieut., Co. B, Hospital Corps, Presidio, San Francisco; Austin, Thomas C., 1st lieut., Co. B, Hospital Corps, Presidio, San Francisco; Bastion, Joseph E., 1st lieut., Co. C, Hospital Corps, Walter Reed General Hospital, District of Columbia; Schlanser, Adam E., 1st lieut., Co. C, Hospital Corps, Walter Reed General Hospital, District of Columbia; Cooper, Wibb E., 1st lieut., Fort D. A. Russell, Wyo., Dept. of the Missouri; Haverkampf, Charles W., 1st lieut., Co. A, Hospital Corps, Fort D. A. Russell, Wyo., Dept. of the Missouri; Edwards, George M., 1st lieut., West Point, N. Y.

Coffey, Albion McD., 1st lieut., M. R. C., when relieved from Fort San Houston, Tex., will proceed to Fort St. Philip, La., relieving First Lieutenant Samuel A. Springwater, M. R. C., who will proceed to his home and report arrival to The Adjutant General.

Clark, John A., Major, M. C., when relieved from duty at Fort Liscum, Alaska, to proceed to Seattle, Wash., and report arrival to The Adjutant General.

Koerper, Conrad E., M. C., major, relieved from Fort Slocum, N. Y., on arrival of First Lieutenant William H. Allen, M. R. C., and ordered to Fort Bayard, N. Mex., relieving Major Charles N. Barney, M. C., ordered to Fort Wadsworth, N. Y.

Dawe, Courtlandt W., M. R. C., ordered from Plattsburg Barracks, N. Y., to home; report arrival to The Adjutant General.

Persons, Elbert E., M. C., major, and Nichols, Henry J., capt., M. C., appointed members of retiring board at Governor's Island, N. Y.

Banister, John M., col., M. C., ordered to U. S. Military Prison, Fort Leavenworth, Kan., on official business and on completion to return to his proper station.

Austin, Thomas C., 1st lieut., M. R. C., granted 10 days' leave, effective on or about June 1, 1910.

Fuller, Leigh A., M. C., granted 10 days' leave of absence, effective June 3, 1910.

Graham, George D., dental surgeon, returned to Fort Leavenworth, Kan., from duty at Fort Des Moines, Iowa.

Medical Corps, U. S. Navy

Changes for the week ended June 4, 1910:

Stibbens, F. H., P. A. surgeon, commissioned passed assistant surgeon from Jan. 4, 1910.

Allen, A. H., P. A. surgeon, detached from the Naval Hospital, New York, and ordered to duty at the Navy Yard, Boston, Mass., in connection with Navy rifle team.

Pugh, W. E., Jr., P. A. surgeon, ordered to duty at the Naval Hospital, New York.

U. S. Public Health and Marine-Hospital Service

Changes for the week ended June 1, 1910:

Cofer, L. E.: asst.-surgeon-general, granted 3 days' leave of absence from May 26, 1910; directed to proceed to Reedy Island Quarantine Station on special temporary duty.

Banks, Charles E., surgeon, granted 12 days' leave of absence from June 12, 1910.

White, J. H., surgeon, detailed to attend the annual session of the American Medical Association, to be held in St. Louis, June 7-10, 1910.

Woodward, R. M., surgeon, leave of absence for 7 days from May 15, 1910, amended to read 1 day, May 14, 1910.

Lumsden, L. L., P. A. surgeon, detailed to attend the annual meeting of the Carolina Municipal Convention, to be held at Winston-Salem, N. C., June 2-3, 1910.

McClintic, T. B., P. A. surgeon, directed to proceed to Toledo, Ohio, Lansing, Mich., and Chicago, on special temporary duty.

Goldberger, Joseph, P. A. surgeon, granted 2 days' leave of absence from May 24, 1910, under paragraph 191, Service Regulations; directed to proceed to New York City on special temporary duty.

Vogel, C. W., P. A. surgeon, granted 10 days' leave of absence from June 1, 1910.

Long, J. D., P. A. surgeon, detailed to represent the Service at the annual session of the American Medical Association, to be held in St. Louis, June 7-10, 1910.

Frost, W. H., P. A. surgeon, directed to proceed to Williamson, W. Va., on special temporary duty.

Bean, L. C., acting asst.-surgeon, granted 3 days' leave of absence from June 2, 1910.

Frissell, C. M., acting asst.-surgeon, granted 3 months' leave of absence, without pay, from June 1, 1910.

Riemer, H. B. C., acting asst.-surgeon, granted 2 days' leave of absence from May 23, 1910, and 7 days from May 27, 1910, under paragraph 210, Service Regulations.

Watson, H. J., acting asst.-surgeon, leave of absence for 19 days from May 30, 1910, amended to read 19 days from May 7, 1910.

Board of medical officers convened to meet at Detroit, for the purpose of reexamining an alien. Detail for the board: Passed Assistant Surgeon M. J. White, chairman; Acting Assistant Surgeon Charles Bell, recorder.

Marriages

LEO CHRISTIAN HUELSMANN, M.D., to Miss Harriet Sturdy, both of St. Louis, May 25.

JOHN PATRICK BRANDON, M.D., to Miss Anna Bradford Hux, both of Essex, Mo., June 1.

J. FRED MCBRIDE, M.D., Coleta, Ill., to Miss Elizabeth Buchborn, of Philadelphia, May 25.

WILBER ELMER POST, M.D., Chicago, to Miss Louise C. Morrison, of Springfield, Ill., June 1.

WILLIAM S. WEAKLEY, M.D., York, Pa., to Miss Zella Olivia Keepers, of Greencastle, Pa., May 21.

HARRY RICHARD BROWN, M.D., Daykin, Neb., to Miss Alta Briggs, of Broken Bow, Neb., June 1.

ELSEY W. HOWELL, M.D., to Miss Bessie Willey, both of Oakton, Ky., at Union City, Tenn., May 25.

EDWARD STANLEY ABBOTT, M.D., Waverly, Mass., to Miss Marian Wetherill, of Philadelphia, May 26.

WILLIAM ERNEST BLODGETT, M.D., Detroit, to Miss Mary Charlotte Bishop, of New York City, June 2.

WILLIAM THOMAS TREWYN, M.D., Peoria, Ill., to Miss Gertrude Cross, of Marshalltown, Iowa, at Chicago, June 2.

JOSEPH JOHN SINNOTT, M.D., Mount Vernon, N. Y., to Miss Cecilia Margaret Cook, of Poughkeepsie, N. Y., at Mount Vernon, June 8.

Deaths

Elizabeth Blackwell, M.D. the first woman to be graduated from a modern medical school; an alumna of the Geneva (N. Y.) Medical College, in 1847; later a student in Paris and London; who in 1867, in connection with her sister, organized the Woman's Medical College of the New York Infirmary; who registered in England as a physician in 1869, and has since practiced in London and Hastings; one of the founders of the London Medical School for Women, and of the National Health Society of London; died at her home in Hastings, England, June 1, aged 89.

Edwin Forrest Preston, M.D. New York University, New York City, 1871; a member of the Medical Society of the State of New York; for more than 25 years health officer of Babylontown, for 20 years a member and chairman of the board of education of Amityville; for three terms coroner of Soffolk county; formerly president of the Bank of Amityville; died at his home in that place, May 26, after the amputation of a toe for gangrene, aged 69.

Montrose Reuben Richard, M.D. College of Physicians and Surgeons, New York, 1877; of New York City; formerly a member of the American Medical Association; a fellow of the New York Academy of Medicine; formerly president of the Nott Medical Society, Mobile, Ala., and of the Harlem Medical Association; resident physician in the Touro Infirmary, New Orleans, from 1880 to 1883; died at the home of his brother in Mobile, Ala., May 25, aged 53.

John T. Wilson, M.D. Jefferson Medical College, 1867; of Sherman, Texas; a member of the American Medical Association and Southern Surgical and Gynecological Association; formerly president of the Texas State Board of Medical Examiners, superintendent of the Texas State Hospital, Austin, and of the North Texas Hospital for the Insane, Terrell; a Confederate veteran; died in Washington, D. C., May 22, aged 64.

Charles Edwin Goodwin, M.D. University of Michigan, 1883; College of Physicians and Surgeons, Chicago, 1904; of Shepherd, Mich.; a member of the Michigan State Medical Society, health officer of Coe township, Isabella county, and vice-president of the Isabella County Medical Society; died at the home of his brother in Ithaca, Mich., May 24, from pernicious anemia, aged 49.

George Wiley Holmes, M.D. Bellevue Hospital Medical College, 1871; University of Michigan, Ann Arbor, 1873; a veteran of the Civil War; for several years a practitioner of Cedar Rapids, Iowa; for more than 15 years a medical missionary in Tabriz, Persia, and physician to the Shah; died at his home in Boonton, N. J., May 10, from organic heart disease, aged 69.

William August Mogk, M.D. University of Michigan, Ann Arbor, 1898; physician of the hospital department of the construction force of the Los Angeles Water Supply Co., and in charge of a hospital northeast of Mojave; was found dead in the Sand Canon Desert of Southern California, May 20, from exhaustion and thirst, aged 35.

John M. Pischczak, M.D. University of Lemberg, Galicia, Austria, 1862; a member of the American Medical Association; at one time professor of pharmacy in the University of Austria; for two terms president of the Polish Medical Society; died at his home in Chicago, June 1, from angina pectoris, aged 72.

William Frederick Mead, M.D. College of Physicians and Surgeons, Boston, 1883; Dartmouth Medical School, Hanover, N. H., 1886; one of the founders of the Dartmouth Medical Alumni Association; also a practitioner of dentistry of Boston; died at his summer home in Hingham, Mass., May 21, aged 63.

William H. Hornaday, M.D. Central College of Physicians and Surgeons, Indianapolis, 1876; of Frankfort, Ind.; a veteran of the Civil War, and for many years a practitioner of Clinton county and justice of the peace of Forest; died in the Palmer Hospital, Frankfort, May 30, from senile debility, aged 73.

David M. Ogden, M.D. George Washington University, Washington, D. C., 1888; a member of the Medical Association of

the District of Columbia, and the District of Columbia Medical Society; died at his home in Washington, April 10, from valvular disease of the heart, aged 58.

Theodore Secor, M.D. 1877; one of the oldest residents of Minneapolis, and an original "free-soiler;" a member of the Wisconsin Constitutional Convention in 1847; died at the home of his granddaughter, in Minneapolis, April 24, from chronic nephritis, aged 96.

Johnson Pillmore, M.D. Cincinnati College of Medicine and Surgery, 1872; a member of the Medical Society of the State of New York; physician to the Rome Hospital; died at his home in Delta, May 20, from disease of the bladder of long standing, aged 62.

Samuel B. Coe, M.D. Western Reserve University, Cleveland, 1886; who attended lectures at Rush Medical College in 1855 and 1856; for many years a practitioner of Fitzgerald, Ga., but later of Minneapolis, died at his home in Rochester, Minn., May 29, aged 75.

La Fayette Hussey, M.D. University of Pennsylvania, Philadelphia, 1863; a member of the Medical Society of the State of North Carolina; one of the oldest practitioners of Duplin county; died at his home in Warsaw, May 22, from senile debility, aged 78.

George Whitfield Furey, M.D. University of Michigan, Ann Arbor, 1877; a specialist in diseases of the eye and ear; for five years a member of the pension board of Sunbury, Pa.; died at his home in that city, May 20, from nephritis, aged 57.

Alexander C. Smith, M.D. Long Island College Hospital, Brooklyn, 1874; a member of the American Medical Association; president of the pension board of Sterling, Ill.; died at his home in that city, May 27, from heart disease, aged 69.

William Stewart Downey, M.D. Victoria College, Toronto, 1865; Bellevue Hospital Medical College, 1865; a member of the American Medical Association; died at his home in Chicago, June 1, from heart disease, aged 70.

Henry Thomas Simmons, M.D. University of Pennsylvania, Philadelphia, 1908; of Altoona; died in the Charity Hospital, Cleveland, Dec. 6, 1909, from the effects of a fall and fracture of the base of the skull, aged 26.

Thomas M. Price, M.D. University of Louisville, 1875; one of the oldest practitioners of Hinds county, Miss.; was found dead in his buggy near his home in Raymond, Miss., May 28, from angina pectoris, aged 56.

John Lucas Corlew, M.D. Keokuk (Ia.) Medical College, 1883; formerly a member of the Missouri State Medical Association; died at his home in Columbia, April 8, from pulmonary tuberculosis, aged 55.

Calvin Anderson, M.D. College of Physicians and Surgeons, New York City, 1865; a member of the Medical Society of New Jersey, and mayor of Madison; died in that city, May 26, from heart disease, aged 69.

Arthur Steele Andrews, M.D. Eclectic Medical Institute, Cincinnati, 1875; formerly president of the Washington (Kan.) National Bank; died at his home in Topeka, Kan., May 19, from nephritis, aged 59.

Isaac P. Farquhar, M.D. Miami Medical College, Cincinnati, 1869; of Zanesville, O.; a veteran of the Civil War; died at the home of his son in Cleveland, May 28, from cerebral hemorrhage, aged 67.

William B. Chambers, M.D. Homeopathic Medical College of St. Louis, 1881; for many years a practitioner of Crawfordsville, Ind.; died at his home in Shelburn, from nephritis, May 26, aged 53.

Henry E. Misener, M.D. Physio-Medical College of Indiana, Indianapolis, 1882; for many years a resident of Servia, Ind.; died at the home of his son at Mechanicsburg, Ind., May 23, aged 51.

Hiram C. Driggs, M.D. Hahnemann Medical College, Philadelphia, 1854; a retired physician of New York City; was run over by a fire engine tender, May 24, and instantly killed, aged 82.

James W. Foster, M.D. Cincinnati College of Medicine and Surgery, 1870; for 35 years a practitioner of Kansas City; died at his southern home in Blessing, Texas, May 18, aged 63.

John Dolway Wilson, M.D. Trinity Medical College, Toronto, 1883; formerly mayor of London, Ont.; died in that city, May 16, from septicemia, due to an operation wound, aged 52.

W. H. Blankinship, M.D. Western Eclectic Medical College of Medicine and Surgery, Kansas City, Kan., 1908; died at his home in Umpire, Kan., May 15, from pneumonia, aged 28.

George Hugh Bacon, M.D. University Medical College of Missouri, Kansas City, 1892; of Carthage, N. M.; died at the home of his mother in Jonesboro, Ill., May 7, aged 45.

George W. Divert, M.D. Medical University of Ohio, Cincinnati, 1868; one of the oldest practitioners of Bedford County, Pa.; died at his home in Imlertown, May 23, aged 71.

Peter G. Johnson, M.D. Cleveland University of Medicine and Surgery, 1892; for 36 years a practitioner; died at his home in Battle Creek, Mich., May 18, aged 82.

Arthur Delavan DeLong, M.D. New York University, New York City, 1888, formerly of Jersey City, N. J., died at his home at Newark, May 13, aged 43.

Frederick John Garraty, M.D. University of Bishop's College, Montreal, 1904; died in Prestea, Gold Coast, West Africa, Oct. 28, 1909, from polyneuritis.

Theodore A. Kimmel, M.D. Cincinnati College of Medicine and Surgery, 1870; formerly of Kansas City, Mo.; died recently at his home in Payette, Idaho.

John W. Daly (license, Arkansas, 1903); a Confederate veteran; of Nashville, Ark.; died at the home of his son in that city, May 13, aged 75.

Robert Gordon Leverty, M.D. New York University, New York, 1885; died at his home in Bridgeport, Conn., May 27, from pneumonia, aged 37.

Harry Martin Smith, M.D. Jefferson Medical College, 1887; of Red Lion, Pa.; died in the York (Pa.) Hospital, May 19, from septicemia, aged 44.

Richard John Egan, M.D. New York University, New York City, 1886; died at his home in Harlem, N. Y., May 24, from pneumonia, aged 46.

George O. Cromwell, Missouri Medical College, St. Louis, 1876; died at his home in Nebo, Ill., March 22, from pneumonia, aged 57.

Michael A. Wesner, M.D. Jefferson Medical College, 1876; died at his home in Johnstown, Pa., May 24, from heart disease, aged 65.

George T. Rankin, M.D. Philadelphia University of Medicine and Surgery, 1868; died at his home in Linesville, Pa., May 8, aged 71.

John Cipperly, M.D. Albany (N. Y.) Medical College, 1856; died at his home in Little Falls, N. Y., February 7, aged 79.

Julius H. Eigholz, M.D. Toledo (Ohio) Medical College, 1885; died at his home in Los Angeles, April 26, aged 74.

Francis Marion Proctor, M.D. Vanderbilt University, Nashville, 1879; died at his home in Alvord, Texas, May 16.

W. P. Adkins, M.D. Tulane University, New Orleans, 1870; died at his home in Fort Worth, May 1, aged 62.

Association News

NEW MEMBERS

List of new members of the American Medical Association for the month of May, 1910:

ALABAMA

Baird, R. H., Cullman.
Dawson, J. R., Birmingham.
Jones, R. C., Mobile.
Ward, D. W., Tuscaloosa.

ARKANSAS

Cooksey, W. P., Atlanta.
Drummond, R. M., Russellville.
Early, C. S., Camden.
Evans, L. T., Barren Fork.
Gilbrech, A. H., Clarendon.
Howton, Oleander, Osceola.
Kelly, J. L., Hope.
Philp, W. H., St. Francis.
Summers, D. C., Elm Springs.

CALIFORNIA

Chaffin, R. C., Los Angeles.
Clarke, W. T., Los Angeles.
Forline, Hamilton, Redlands.
Greene, Frances M., Berkeley.
McKenney, A. C., San Francisco.
Newman, W. H., Long Beach.
Russell, P. N., Fresno.
Taylor, A. H., San Francisco.

COLORADO

Burnett, N. M., Lamar.
Campbell, W. H., Pueblo.

CONNECTICUT

Tuch, Morris, Hartford.

FLORIDA

Hurchinson, Clarence, Pensacola.
Rivers, T. M., Kissimmee.
Gaskins, J. D., Jacksonville.

GEORGIA

Gibbs, E. T., Gainesville.
Joyner, A. S., Sylvania.
Kennedy, W. D., Metter.

ILLINOIS

Ash, J. C., La Harpe.
Bailey, H. B., Rockford.
Bartholomew, E. K., Chicago.
Burns, W. L., Witt.
Chapman, W. D., Silvis.
Cohen, Hyman, Chicago.
Curtis, A. H., Chicago.
Dewey, Grace, Jacksonville.
Dattelzweig, M. F., Chicago.
Drake, C. St. Clair, Chicago.
Fitzpatrick, E. H., Pontiac.
Glasen, G. M., Chicago.
Grayson, W. F., Granite City.
Green, J. A., Rockford.
Griffeth, F. W., Elgin.
Gunn, J. C., Belleville.

Harlan, N. R., Freeport.
Harris, Monroe, Newton.
Heldring-Fabricius, L. J., Chicago.
Kirk, E. G., Chicago.
Klotz, O. P., Chenevville.
Kleckner, R. E., Mattoon.
Koch, W. A., Middletown.
Liston, J. B., Shipman.
Musser, C. W., Chicago.
Moldenhauer, William J., Chicago.
Motley, E. G., Virden.
Nason, W. C., Ashkum.
Neal, J. R., Springfield.
Nyman, C. V., Rockford.
Perry, W. H., Sterling.
Seely, W. J., Red Bud.
Snyker, J. H., Decatur.
Steely, G. W., Louisville.
Thomas, E. H., Argenta.
Tonney, F. O., Chicago.
Vanatta, H. B., Lerna.
Vermeren, C., Chicago.
Wells, J. W., Waltonville.
Wetheria, W. W., Chicago.
Von Zelinski, W. F., Chicago.

INDIANA

Brown, K. T., Crawfordsville.
Cain, D. B., Evansville.
Charles, Etta, Summitville.
Dobyns, P. K., Franklin.
Dow, W. S., Indianapolis.
Harold, A. R., Indianapolis.
Harold, N. E., Indianapolis.
King, W. F., Columbia City.
Markley, W. H., Pennville.
Prather, S. A., Vincennes.
Reed, J. H., Logansport.
Rice, T. R., Petersburg.
Simonds, J. P., Indianapolis.
Terry, O. P., Lafayette.
Thomas, E. C., Indianapolis.

IOWA

Anspach, R. G., Colfax.
Besser, E. F., Newton.
Crary, A. W., Boone.
Earl, H. D., Cherokee.
Grimwood, W. H., Ft. Madison.
Patterson, A. W., Linden.

KANSAS

Battendieri, O. D., Pittsburg.
Billings, A. E., Topeka.
Burk, F. O., Iowa City.
Everhardy, J. L., Leavenworth.
Meyer, Grant, Lincolnville.
Moore, R. W., Arcadia.
Nasvem, H. A., Argentine.
Philipp, Herman, Wichita.
Ratliff, H. S., Cawker.
Reed, E. W., Holton.
Risdon, J. W., Leavenworth.
Schrader, L. M., Kinsley.
Wolfe, R. D., Council Grove.
Young, R. C., Arkansas City.
Zinke, S. G., Leavenworth.

KENTUCKY

Behrman, Michael, Covington.
Brummett, U. C., Middlesboro.
Eckler, C. M., Williamstown.
Goodloe, E. R., Little Cypress.
Gossett, W. L., Franklin.
Hopson, J. L., Cadiz.
Jones, R. M., Calvert City.
Langolf, F. A., Louisville.
Lukins, J. B., Louisville.
McEuen, H. B., St. Charles.
Offutt, W. N., Lexington.
Stone, T. W., Bowling Green.
Wahle, A. J., Louisville.
Woodburn, J. C., Bremen.

LOUISIANA

Adams, J. M., St. Joseph.
Hargrove, M. V., Oakdale.
Ledoux, A., New Orleans.
Lilly, J. G., St. Joseph.
Trahan, A. R., Lafayette.

MARYLAND

Gombel, William, Baltimore.
Laroque, H. E., Baltimore.

MASSACHUSETTS

Adamion, P. A., Boston.
Bieberbach, W. D., Worcester.
Crawford, F. W., S. Weymouth.
Shaw, J. W., Newburyport.

MICHIGAN

Arminen, K. V., Hancock.
Collins, W. E., Kalamazoo.
Force, W. H., Ludington.
Johnson, R. K., Detroit.
Krickard, P. J., Grand Rapids.
Linn, R. S., Detroit.
Repp, W. A., Detroit.
Stone, Harriette M., Kalamazoo.

MINNESOTA

Field, Merton, Minnesota Lake.
Norman, J. F., Crookston.
Olsen, S. H., Milaca.
Ratcliffe, J. J., Aitkin.
Rogers, G. M. F., Austin.

MISSISSIPPI

Barnes, I. F., Gulfport.
Johnson, G. E., Hudsonville.
Keithly, C. L., Rome.
McLean, E. R., Cleveland.

MISSOURI

Aldridge, M. R., Jefferson City.
Armstrong, C. L., Webster Groves.
Ash, O. O., Moberly.
Baker, J. H. P., Sailsbury.
Baker, Marshall, Webster Groves.
Barger, J. N., Albany.
Barker, W. S., St. Louis.
Barnhart, D. A., Huntsville.
Baumgartner, C., St. Louis.
Bell, E. T., Columbia.
Bellaire, R. F., St. Louis.
Bentele, Elizabeth, St. Louis.
Biewend, E. F., St. Louis.
Boyd, F. R., St. Louis.
Cameron, Solon, St. Louis.
Coil, P. E., Mexico.
Dalgliesh, G. D., Rockville.
Dames, A. F., St. Louis.
Davis, F. L., St. Louis.
Douglas, J. T., Ferguson.
Doyle, J. M., St. Joseph.
Drace, J. J., Kennett.
Dreyfus, J. W., Louisiana.
Dutton, C. K., Moberly.
Elkins, W. C., Crystal City.
Evans, E. E., Columbia.
Evans, R. L., Boonville.
Evers, E. T., St. Louis.
Ewing, F. C., St. Louis.
Fischer, O. F., St. Louis.
Frank, Konrad, St. Louis.
Gaertner, C. W., St. Louis.
Ginsberg, E. L., Kansas City.
Gove, H. S., Linn.
Greensfelder, Harry, Kirkwood.
Gundlach, Arthur, St. Louis.
Habermaas, Albert, St. Louis.
Haffner, E. L., Hermann.
Hall, Elizabeth L., Carthage.
Hardaway, W. A., St. Louis.
Hardy, Joseph, St. Louis.
Hawkins, W. R., Glasgow.
Hawley, T. S., St. Louis.
Heuman, G. W., St. Louis.
Hewitt, W. L., St. Louis.
Hill, J. A., Jefferson City.
Hoberecht, C. A., St. Louis.
Horst, O. C., St. Louis.
Hughes, M. R., St. Louis.
Hulen, J. C., Centralia.
Hurt, P. L., Boonville.
Janes, V. B., Cameron.
Johnson, G. A., Moberly.
Juengel, A. H., St. Louis.
Kampschmidt, A. W., Columbia.
Kempff, L. A., St. Louis.
Kesl, G. M., St. Louis.
Koch, O. W., Ballwin.
Larew, J. T., St. Louis.
Lewis, M. L., Columbia.
Magoon, F. L., St. Louis.
Martin, C. P., St. Louis.
McCall, G. D., Fulton.
McCormick, F. L., Huntsville.
Murray, S., Holden.
Musser, C. W., Metz.
Newman, Percy, St. Louis.
Niebruegge, H. J., St. Louis.
Norris, W. A., Columbia.
Owen, H., Fulton.
Paulin, Stanley, Kansas City.
Porth, J. P., Jefferson City.
Rodes, W. R., Mexico.
Rothwell, C. A., Mexico.
Rottock, Julius, St. Louis.
Scholz, Phil., St. Louis.
Sewing, A. H., St. Louis.
Sharp, W. L., Little Rock.
Shumate, D. L., Kansas City.
Stewart, E. L., Kansas City.
Storrs, H. J., St. Louis.
Stevens, C. D., St. Louis.
Toalson, G. F., Mexico.
Torrance, L. B., St. Louis.
Walker, R. A., St. Louis.
Weinsberg, J. H., St. Louis.
Wilson, R. E., La Belle.
Wright, U. S., Fayette.
Yost, W. B., St. Louis.
Young, D. H., Fulton.

MONTANA

Phillips, O. S., Browning.

NEBRASKA

Langstaff, G. A., Blair.
Myers, B. L., Omaha.
Phillipsen, J. A., Lincoln.
Raines, R. F., Red Cloud.

NEVADA

Adams, A. F., Ely.

NEW HAMPSHIRE

Burtt, E. D., Lincoln.
Howland, Clifford, Bradford.

NEW JERSEY

Dougherty, A. C., Newark.
Flynn, T. H., Somerville.
Foster, G. H., Rockaway.
Miller, H. G., Millville.
Muttart, G. W., Jersey City.
Reid, J. W., Kearny.
Runyon, L. P., New Brunswick.
Winslow, J. H., Vineland.

NEW MEXICO

Dillon, A. L., Clovis.

NEW YORK

Anthony, H. E., Moravia.
Brown, H. W., Binghamton.
Brown, Sherman, Kings Park.
Burns, G. S., Rochester.
Carter, DeLancy, New York City.
Crisman, B. J., Utica.
Elmendorf, TenEyck, New York City.
Fincke, H. S., Astoria.
Held, R. J., New York City.
Hoobler, B. R., New Cork City.
Lustig, Emil, Buffalo.
Meyer, W. H., New York City.
Nash, P. I., Coney Island.
Prince, Howard, Byron.
Teeter, L. H., Niagara Falls.
Wilson, R. C., Ithcan.

NORTH CAROLINA

von Ruck, Silvio, Asheville.

NORTH DAKOTA

Brugman, F. A., Minot.
Macdonald, A. W., Valley City.
Sorenson, A. R., Barton.

OHIO

Batte, J. T., Cincinnati.
Blakey, H. B., Columbus.
Cox, E. H., Cleveland.
Griffin, J. G., Kelleys Island.
List, W. E., Cincinnati.
Morrison, F. A., Uhrichsville.
Paul, C. M., Cincinnati.
Roop, W. O., Dayton.
Samson, F. B., Cincinnati.
Smith, W. L., Toledo.
Spicer, D. M., Cleveland.
Wendelken, C. W., Portsmouth.
Williams, J. H., Cincinnati.
Workman, I. S., Gambier.

OKLAHOMA

Armstrong, D., Mead.
Coppedge, O. S., Depew.
Henderson, C. F., Chant.
Lewis, L. L., Lawton.
Lockett, B. L., Swink.
Long, Dock, Duncan.
McBurney, C. H., Clinton.
Overton, L. M., Guthrie.
Pope, A. J., Hanna.
Reeder, H. M., Asher.
Robinson, E. T., Cleveland.
Thompson, Claude A., Muskogee.
Turpin, C. H., Grandfield.

OREGON

Booth, C. L., Portland.

PENNSYLVANIA

Baltz, S. A., Mt. Braddock.
Crothers, S. R., Chester.
Dwyer, J. E., Oil City.
Esbbach, W. W., Allentown.
Heller, S. H., Lancaster.
Heim, L. D., Schuylkill Haven.
Hislop, John, Miners' Mills.
Kohberger, H. P., Pittsburg.
Lynch, H. F., Morganza.
Moore, W. D., Germantown.
Prowitt, H. P., Washington.
Schatz, H. A., Philadelphia.
Smith, H. F., Scranton.
Stockberger, H. J., Claridge.
Vaux, N. W., Philadelphia.
Whitehead, I. B., Pittsburg.

RHODE ISLAND

Calder, H. G., Providence.
Glancy, C. A., Bristol.

SOUTH CAROLINA

Graham, W. F., Summerville.
Guerry, LeGrand, Columbia.
Lemmon, C. J., Sumter.

SOUTH DAKOTA

Gerdes, P. H., Eureka.
Lloyd, J. C., Platte.

TENNESSEE

Biggs, V. A., Martin.
Billington, R. W., Nashville.
Dodds, O. L., Eaton.
Dotson, Walter, Gallatin.
Manker, R. A., Whitesburg.
Neely, J. J., Bolivar.
Paschall, A. B., Fulton.
Rice, J. C., Braden.
Thompson, M. E., Laxton.

TEXAS

Carrick, M. M., Abilene.
Cheaney, Price, Dallas.
Currie, A. B., Rainbow.
Eads, J. W., Barksdale.
Faulk, Lem., Emory.
Florence, J. H., Houston.
Janes, O. Y., Cooper.
Proctor, T. K., San Angelo.
Rogers, J. E., Barksdale.
Ross, Daniel, Denison.
Stokes, E. B., Crockett.

UTAH

Harvielle, C. P., Mammoth.
Holbrook, H. C., Lehi.
Hunter, H. C., Milford.
Pyne, H. S., Provo.

VERMONT

Bogue, H. A., Richford.
Edmunds, G. F., Bristol.

VIRGINIA

Baker, C. H., Buddle.
Hough, Theodore, University.
Hubbard, J. F., Faber.
Lacy, J. B., Nathalie.
Moncure, P. St. L., Norfolk.
Nelson, J. G., Richmond.
Waldron, J. W., Grundy.

WASHINGTON

Babcock, O. D., Seattle.
Botzer, Wm., Mayfield.
Braden, A. E., Tacoma.
Burke, H. T., North Bend.
Case, S. W., Seattle.
Dallenbach, J. C., Seattle.
Dalton, M. T., Sumas.
Flynn, A. M., Tacoma.
McIntire, H. E., Auburn.
Mills, F. H., Fort Flagler, M R.C.
Nather, F. B., Spokane.
Porter, L. L., North Yakima.
Quilliam, L. R., Walla Walla.
Smeall, J. S., Tacoma.
Spurgeon, G. C., Seattle.
Stevenson, A. W., Yacott.
Thompson, H. B., Seattle.
Warner, W. H., Walla Walla.

WEST VIRGINIA

Ballard, S. E., Maben.
Cook, Macdonald, Big Creek.
Hamilton, M. F., Mannington.
Harless, W. F., Clothier.
Hatfield, E. R., Eventon.
Hill, S. W., Switchback.
Matson, F. L., Hundred.
Owens, W. T., Mt. Clare.
Rumisell, C. C., Gassaway.

WISCONSIN

Elliott, J. T., Rhinelander.
Fidler, C. A., Milwaukee.
Gilberson, P. C., Black Earth.
Keller, J. M., Milwaukee.
Nelson, A. W., Clear Lake.
Newell, G. E., Burlington.
Sykes, H. D., Milwaukee.
Vogel, C. A., Elroy.

WYOMING

Ainsworth, H. H., Cody.

PHILIPPINE ISLANDS

Sison, A. G., Manila.

PROCEEDINGS OF THE ST. LOUIS SESSION

MINUTES OF THE SIXTY-FIRST ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT ST. LOUIS, MO., JUNE 6-10, 1910

House of Delegates

First Meeting — Monday Morning, June 6

The House of Delegates convened in the auditorium of the St. Louis Medical Society at 10:35 a. m., and was called to order by the President, Dr. William C. Gorgas, Ancon, Panama.

Dr. H. Bert Ellis, California, presented a preliminary report of the Committee on Credentials, as chairman.

There being no objection raised, the report of the committee was accepted.

The General Secretary called the roll, and 74 members responded.

The President: The next order is the reading, correction and adoption of the minutes of the Sixtieth Annual Session.

Dr. Alexander R. Craig, Pennsylvania: I move that the minutes as printed be approved.

This motion was seconded and carried.

President's Address

To the Members of the House of Delegates of the American Medical Association:

It is customary for the retiring President to make suggestions to the House of Delegates looking to the betterment of the Association. The more or less close contact with the affairs of the Association for the preceding two years should place him in an advantageous position for doing this.

The Association is developing so steadily and running so successfully that I see very little room for suggestion as to change.

During the year the question was raised as to the power of our President, under our constitution, to fill vacancies that may occur in the standing committees during the interim between meetings of the House of Delegates. The matter was referred to our legal adviser. He was not clear in his own mind as to whether the President had the authority or not. I recommend that the matter be authoritatively settled.

The Association is doing a very extensive and good work and is extending its usefulness in many directions, but it seems to me that there is a tendency to take up new work and drop out of sight work already in hand. This, I think, should be borne in mind.

It is probable that most of our members attend these meetings attracted by the scientific phase, which is mostly developed in the Sections. This is a most important part of our work and should be encouraged in every way.

Our constitution says that one of the objects of our Associatino is to safeguard the material interests of the medical profession in the country at large. This phase of our work has come to the front in the last few years through our Council on Pharmacy and Chemistry. This work has been most far-reaching in protecting the people at large against all sorts of patent nostrums. As an Association we have made bitter enemies of the people engaged in the "patent-medicine" business and as they command large capital they are at present making a serious organized fight against us. This is the most altruistic part of our activity for the benefit of others or for the members of the Assoication.

Our Association is probably the most compactly organized body of men in the whole country; its branches are located in every part of the country. Through the county and state society we can reach all national legislators. This gives us great influence on legislation. During the past year our Committee on Medical Legislation has been very active and successful in shaping national legislation. This work is good and should be pushed, but as the Association feels its enlarging powers in this direction care should be taken that we do not become involved in political matters, From this time forward there will be more or less tendency to complication in this direction.

The address was referred to the Reference Committee on Reports of Officers.

Report of the General Secretary

To the Members of the House of Delegates of the American Medical Association:

I submit herewith a report for the year 1909-1910:

Membership

The membership of the American Medical Association on May 1, 1909, as shown by the report for that year was 33,935. During the past year 289 members have died, 1,937 have resigned, 625 have been dropped as not eligible, 406 have been dropped for non-payment of dues, and 95 have been removed from the rolls on account of being reported as "not found" or on account of mail returned by the Postoffice Department, making a total of 3,352 names to be deducted from the membership list. Since May 1, 1909, there have been added 3,593 names to the membership list, of which 2,628 were transferred from the subscription list, and 965 were new members. The membership of the American Medical Association on May 1, 1910, was 34,176, a net gain for the year of 241. The explanation of the apparently large number of members entered as resigned is that many who were not eligible under the by-laws were allowed to resign in preference to being entered as dropped, while many others resigned on account of age.

Committees Appointed Ad Interim

Since your last meeting, on June 11, 1909, the following committees were appointed by the president:

SELECTION OF INSIGNIA FOR THE A. M. A.

Maj. M. W. Ireland, chairman, Washington, D. C.; G. L. Taneyhill, Baltimore, Md.; C. E. Cantrell, Greenville, Texas; Samuel P. Gerhard, Philadelphia, Pa.; Samuel Wolfe, Philadelphia, Pa.

COMMITTEE ON ESTABLISHMENT OF PHYSICIANS' SANITARIUM

Edward Jackson, chairman, Denver, Colo.; A. C. Magruder, Colorado Springs, Colo.; Jefferson R. Kean, Washington, D. C.; A. T. Bristow, Brooklyn, N. Y.; H. Bert Ellis, Los Angeles, Cal.

DELEGATES TO CONVENTION ON REVISION OF PHARMACOPEIA

J. A. Capps, Chicago; George H. Simmons, Chicago; W. A. Puckner, Chicago.

Application from the Medical Association of the Isthmian Canal Zone

In the fall of 1909 an application for recognition and affiliation was received from the Medical Association of the Isthmian Canal Zone. The application, together with the accompanying documents, is referred to the House of Delegates for consideration and action, with the recommendation that it be accepted and that the Medical Association of the Isthmian Canal Zone be recognized as one of the constituent associations of the American Medical Association.

Death of Dr. Burrell

A year ago Dr. Herbert Leslie Burrell was President of the American Medical Association, and should have presided over the deliberations of the House of Delegates during the first day of the annual session. Illness, however, prevented his attendance at that meeting. Dr. Burrell did not recover from that illness and died April 27, 1910. During the year he had been unable to attend to any of his professional or college duties. Dr. Burrell was 54 years of age. In his death the Association has lost a distinguished member and a valuable officer; American surgery a skilful exponent; and the medical profession, one who has always been ready to do his duty as he saw it.

Membership of State Associations

The membership of the various constituent state associations, according to the records in the General Secretary's office on May 1, 1910, is as follows:

Alabama	1,738	New Hampshire	594
Arizona	131	New Jersey	1,340
Arkansas	989	New Mexico	237
California	2,057	New York	6,755
Colorado	811	North Carolina	1,141
Connecticut	803	North Dakota	376
Delaware	108	Ohio	3,934
Dist. of Columbia	548	Oklahoma	1,309
Florida	339	Oregon	391
Georgia	1,145	Pennsylvania	5,351
Idaho	116	Rhode Island	367
Illinois	5,404	South Carolina	740
Indiana	2,550	South Dakota	341
Iowa	2,081	Tennessee	1,253
Kansas	1,376	Texas	3,080
Kentucky	1,986	Utah	210
Louisiana	1,068	Vermont	398
Maine	574	Virginia	1,604
Maryland	1,107	Washington	870
Massachusetts	3,303	West Virginia	971
Michigan	2,300	Wisconsin	1,730
Minnesota	1,220	Wyoming	123
Mississippi	1,001	Hawaii	58
Missouri	2,862	Philippine Islands	95
Montana	201		
Nebraska	1,001	Total	70,146
Nevada	59		

UNIFORM REGULATION OF MEMBERSHIP

The second report of the Committee on Uniform Regulation of Membership, which was enlarged at Atlantic City by the addition of five state secretaries, will be presented by that committee. The regulation of the details of individual membership is becoming more and more important to the county and state societies, as well as to the American Medical Association, and the uniform, systematic and equitable regulation of membership affairs is deserving of careful attention.

THE SECRETARYSHIP—A BIT OF HISTORY

Dr. W. B. Atkinson, my immediate predecessor, was elected permanent secretary in 1864. The office was regarded as a permanent one, as the title indicates. For several years preceding 1898 there had been considerable criticism regarding the conduct of the office—whether just or not is immaterial—and this resulted in definite action by the Association at the Denver meeting, 1898. That year certain resolutions, relative to the matter, were introduced, among which were the following:

"*Resolved*, That a General Secretary be appointed by the Business Committee at a salary not exceeding $3,000 per year, who, under the direction of the Business Committee, shall forward the interests of the Association in every way possible.

"*Resolved*, That the Business Committee be directed to consider the matter and report to the Association in regard to the feasibility of the plan proposed."

The Business Committee, on the following day, reported:

"While the Committee fully agree as to the desirability of having much more active secretary work done for the Association, and believe that the plan proposed would greatly increase the scope and usefulness of the Association, it is not prepared at the moment to recommend the adoption of the resolution. It is a matter of such very great importance that further consideration of the details involved is necessary, and as it may possibly involve a change in the Constitution and By-Laws, your Committee has decided to recommend that the matter lie over for one year, and hereby gives notice that it proposes such changes, if any are necessary, in the Constitution and By-Laws at the next annual meeting of the Association."

Later, as the matter involved the expenditure of money, it was referred to the Trustees to report the following year. The Business Committee also submitted an amendment to the By-Laws, providing for the annual election of a Secretary.

At the Columbus meeting, 1899, the matter came before the Association in three ways; from the committee to which the proposed amendment of the By-Laws had been referred; from the Board of Trustees; and from the President, Dr. J. M. Mathews, in the annual President's address. I quote from the latter:

"For several years there has been a heated debate, if not wrangle, at each annual meeting, in general session, over the secretaryship. This is both unseemly and undignified, and is to be much deplored. It seems to me that there is an easy solution to this matter. Let the editor of our Journal be the secretary of the Association. The Board of Trustees has wisely insisted that he devote his whole time to the Journal. It does, therefore, appear that the secretaryship should be one of his duties. By so acting he is brought into a closer relation with the business management of the Association and with the active membership of the same. He would himself be responsible for a correct report of all proceedings, and be enabled to keep them without fault. The question whether or not any addition should be made to his salary for this additional work can be determined by the board of trustees. Our present secretary has served us long and well, and for his services in the past the Association should, and no doubt does, feel deeply obligated to him. I am sure that he would be the first to acquiesce in any move that would enhance the business interests or the prosperity of the Association. I therefore very respectfully offer the suggestion as above stated."

The Committee's recommendations regarding the change of By-Laws and the recommendations of the Trustees were formulated into amendments to the By-Laws, among which was the following:

"Each officer, except the Secretary, shall hold office for one year, and until his successor is selected. The Editor of the JOURNAL of the American Medical Association shall be the Secretary of this Association, and shall serve as such without additional compensation."

Two years later, in 1901, at my suggestion, the first "shall" in the second sentence above quoted was changed to "may," again placing the election of General Secretary in the hands of the Association, and later all mention of the connection between the two offices was eliminated from the By-Laws.

Thus, in 1899, being editor of THE JOURNAL, against my wishes and under protest I became the secretary. Having accepted the position I tried to perform what I considered the duties pertaining to the office. The work increased rapidly, and within two years I found that I was devoting nearly as much time and energy to the secretarial as to THE JOURNAL work.

About six years ago I suggested to the Board of Trustees that I relinquish the secretaryship on account of the amount of detail work connected therewith. The Board of Trustees, however, advised against this, but recommended and authorized the employment of an assistant to the secretary whose duty should be to look after and carry out the details of that work. After some time spent in looking for a man fitted for the place, the position was tendered to Dr. F. R. Green who accepted it, and in April, 1905, assumed the duties of Assistant to the General Secretary. Since that time he has been taking care of most of the secretarial work.

However, I had decided not to hold the office for longer than ten years, and last year, 1909, fully expected to ask you to elect some one else. For reasons not necessary to mention, I did not do so.

I think the time has come, however, when I should ask you to relieve me of the responsibilities of the office of General Secretary, and this I now do. I realize that it is not usual to refuse a thing, especially an elective office, before it is offered. I think it better, however, to make the announcement now, so that there may be ample time for you to consider carefully whom you shall select for the position.

I want to take this opportunity of thanking you for the kindness, cooperation and assistance that I have received at your hands. Eleven consecutive years I have been unanimously elected General Secretary, twice at the General Meeting, before the reorganization, and nine times by the House of Delegates.

During this time much has been accomplished. For only a minor part of what has been done can I claim any credit, but what little may have been accomplished through my efforts was made possible because a host of splendid men in our profession have loyally and unselfishly given their support and cooperation to the work.

Respectfully submitted.

GEORGE H. SIMMONS,
General Secretary.

This report, on motion, was referred to the Reference Committee on Reports of Officers.

Report of the Board of Trustees

To the Members of the House of Delegates of the American Medical Association:

The progress made by this Association during the past year has been most encouraging. Anyone who read the elaborate and instructive reports presented by the permanent Committees and Councils to this body at its meeting a year ago, could not fail to be impressed by the earnest, hard work done by these Committees and by the great value of that work to the profession as well as to the people.

As these Committees report directly to this body your Board of Trustees refrains from presenting the details of their work for the past year, but recommends to your careful study and consideration their forthcoming reports, feeling certain that the members of these Committees who do this work at great sacrifice of time, energy and often money will receive at your hands the earnest encouragement and hearty approbation which they deserve.

It is one of the most encouraging features of our organization that men of the character of those forming these Committees will so generously give of their time and labor for the benefit of all.

In looking over these reports one is struck by the numerous lines along which the activities of the Association are extending. Instead of a small body of men meeting once a year for scientific and social purposes we now find a vast organization extending into every county and almost every town in the land deeply engaged not only in the scientific work of the profession but also in the solution of economic and sociologic problems in a manner scarcely dreamed of by the most enthusiastic worker but a few years ago.

Among the numerous subjects which the organization has taken up may be mentioned: The systematic and thorough investigation of the medical teaching institutions of the United States, with a view to elevating the standard of medical education and the moral and scientific attainments of those who seek to enter the profession.

The careful study of the various state laws governing the practice of medicine with a view to the drafting of a uniform medical practice act which shall secure to the people the greatest degree of protection and to the profession the greatest justice:

The systematic education of the people in matters relating to both public and personal hygiene, to the prevention of blindness, to the care of dependents, to the prevention of the propogation of the insane and of the criminal, etc.:

The passage of such laws by the national and state governments as shall secure to the people pure, wholesome food and pure drugs:

The establishment of a National Department of Health with powers and duties commensurate with the importance of the subject:

The adoption of a uniform system of nomenclature and classification of diseases:

The careful study of the rules and regulations governing membership in county and state societies with a view to securing greater uniformity thereof and for the purpose of improving if possible the plan of organization of the local, state and national bodies:

The education of the people in regard to the dangers of the patent medicine frauds and of the profession in regard to the composition and the effects of the proprietary drugs, new remedies, etc.

These are by no means all of the problems which the Association is undertaking but they are sufficient to indicate the various lines along which its activities are extending, and while the Board of Trustees wishes it distinctly understood that it is in accord with all of these movements, yet it cannot refrain from uttering a word of caution against attempting too many things at a time lest we dissipate our energies and forces in a multiplicity of aims.

As the Council on Pharmacy and Chemistry reports to the Board of Trustees, a few words concerning the work done by this Council during the past year may be of interest.

The amount of work done has greatly exceeded that of any previous year and the results of the work as published from week to week in THE JOURNAL have been of the greatest practical value to every physician. In support of this statement we wish to mention briefly the work done by the Council in the examination of the numerous so-called meat extracts and meat juices with which the market, both public and professional, has been flooded.

It will be acknowledged by all that the nourishing of the sick is a subject of the most vital importance and therefore, any product for which the manufacturer claims unusual nutritive value should have its worth carefully determined by competent judges.

After a most exhaustive examination of these products it was found that the meat extracts are practically devoid of nutritive bodies and that while some of the meat juices were shown to contain considerable amounts of bodies of great food value, many of the products on the market which were claimed to be meat juices proved to be nothing but meat extracts or similar non-assimilable products.

Since the prescribing of such products by physicians, under the mistaken idea that they possess food value, must result in harm to the patients, the Council investigated those most widely advertised and published its findings in THE JOURNAL so that no physician need be misled any longer by the erroneous claims made by the manufacturer for any of these products.

Another class of products of great interest and importance at this time and concerning which reliable information has been difficult to obtain is that of the various serums and vaccines.

During the past year the Council has done a most timely piece of work in this direction and has prepared and published descriptions of the several products as they are found on the American market.

These two classes are mentioned, as they are somewhat out of the ordinary, simply to illustrate the character of the work which the Council is doing. That the magnificent work done by the Council is receiving just recognition beyond the confines of our own land is well shown by the fact that during the past year a number of prominent European firms have taken active measures to have all of their products listed by the Council.

One of these firms has opened a branch office in this country because it found that the drug firm which had acted as its representative was also engaged in the exploitation of patent medicines. The submission of products by the foreign firms demonstrates that the listing of new products with New and Nonofficial Remedies is being felt essential as an indication of good faith with the profession.

It may be stated that the Council has examined practically all the non-official articles now on the market and that those not listed by it are deemed by it unworthy of consideration by the profession.

In the main the work of the Council thus far has been to determine whether or not those dealing in medicines were telling the truth.

This work really should have been done by the federal, state and municipal authorities but it required the courage of those who constitute the Council and the prestige of the American Medical Association to antagonize the powerful interests connected with proprietary medicines.

The amount of work done in the Chemical Laboratory in our own building has increased greatly so that it is impossible to even mention all of the products and compounds which have been investigated during the past year.

It seems almost unbelievable that any person or firm would attempt to perpetrate such gross frauds on the profession and the people as have been uncovered in our own laboratory.

For instance a product called "Health Grains" which is offered as a remedy for dyspepsia, indigestion, nervousness, etc., was found to consist of nearly 90 per cent. sand and about 10 per cent. sugar.

Another product sold at an exorbitant price with outrageously exaggerated claims as a face preparation, was found to be about 90 per cent. ordinary Epsom salts and 10 per cent. borax.

A certain product which was submitted to the Council by the manufacturer was found not to contain the substances specified on the label. When attention was called to the fact the manufacturer attempted to explain the discrepancy between the label and the contents by saying it was due to a lack of coordination between the various departments. Remember this was not a patent medicine but a proprietary article offered to and used by the physician. The name of the manufacturer has been withheld because the article has been taken off the market.

Numerous other incidents similar to the above might be mentioned but sufficient has been said to indicate the character of the work done in the laboratory.

Your Board of Trustees desires to bring to your attention at this time a matter of great importance, and in doing so it does not wish to be understood as attempting to anticipate the report nor in any way to interfere with the prerogatives of the special committee appointed by you to consider the advisability of consolidating certain of the present committees, but it wishes to call your attention to the fact that in your earnest endeavor to bring about certain very desirable results you have appointed perhaps unconsciously, a multiplicity of committees whose duties so overlap in many directions as to lead to an unnecessary duplication of the work with a concomitant duplication of expense and loss of energy, and a lack of cooperation and concurrence among the committees renders negative or ineffectual much of the work undertaken.

It will be recalled that those Committees which have been centralized have been productive of the best results. It is therefore believed that if the various Committees which now exist with a similarity of duties were centralized in a single Bureau with a paid secretary and stenographer with headquarters in THE JOURNAL building much more effective work would be done and greater results accomplished.

This does not in any sense mean that fewer individuals would be engaged in the work, as the Bureau should have the power to establish any number of sub-committees to carry on the work along special lines, but it means simply this, that there would be a head to systematize and correlate the work of the various sub-committees.

Closely related to this subject is that of the Women's Committees on Public Educational Matters.

It may be well to state at the outset that the Board of Trustees is in entire sympathy with the movement and believes that an immense amount of good might be accomplished in the manner outlined.

It will be remembered, however, that the resolution having for its object the formation of the Women's Committee was introduced on the afternoon of the last day of the session and owing to a lack of time was passed unanimously by those present without due consideration.

The accidentally faulty wording of the resolution therefore escaped detection and while the mover thereof undoubtedly believed that the resolution, as was intended, actually created a women's Committee of the House of Delegates or of the A. M. A., as a matter of fact it failed to do either and the Committee therefore became a self-appointed one.

The Board of Trustees had no official knowledge of the matter until called upon some time later to meet certain expenses already incurred by the self-appointed Committee. The board believes this a matter of considerable importance.

Should the centralized Bureau above mentioned be created by the House of Delegates at this time, then this Committee would be properly taken care of as a part of the Bureau, otherwise some action should be taken giving this Committee proper standing and defining its duties.

We are pleased to say that the new building authorized by you at your last meeting is in process of erection. Considerable delay was experienced in securing satisfactory bids for the work on account of industrial conditions, but the contracts call for the completion of the building by October 1 and unless some unforeseen complication arises it seems likely that the terms of the contract will be fulfilled.

Appended hereto will be found a detailed report of the business side of the Asssociation and of THE JOURNAL, together with an elaborate report from the auditors, bringing everything along these lines down to the end of the fiscal year.

In conclusion the Board may be permitted to express its belief that the future of the Association never was so bright as at the present time.

The profession through the land, year by year is becoming more firmly united in bonds of fraternal harmony and every feeling of internal strife is yielding to the universal desire to uplift the profession and to cause such a dissemination of the knowledge of scientific medicine as shall bring to all mankind that greatest of blessings, good health. But in the earnest endeavor to bring to a fruitful issue the ends toward which we strive, let us guard most carefully against the tendency which so frequently and so insidiously creeps into an organization of the strength of this to dip into politics and thus pollute the honorable traditions of our profession.

Remember that our strength lies in a righteous cause honestly fought.

Respectfully submitted,

W. W. GRANT,
PHILLIP MARVEL,
C. E. CANTRELL,
PHILLIP MILLS JONES,
W. T. SARLES.
C. A. DOUGHERTY,
W. T. COUNCILMAN.
WISNER R. TOWNSEND, Secretary.
M. L. HARRIS, Chairman.

Addenda to Trustee's Report

SUBSCRIPTION DEPARTMENT

The regular weekly issue of THE JOURNAL of the American Medical Association from Jan. 2, 1909, to Dec. 25, 1909 inclusive, 52 issues, was as follows:

January	2	53,891	July	3	55,440
January	9	53,253	July	10	55,379
January	16	53,319	July	17	55,145
January	23	53,338	July	24	55,028
January	30	53,283	July	31	54,872
		267,084			275,864
February	1	53,476	August	7	55,333
February	13	53,381	August	14	56,469
February	20	53,457	August	21	54,600
February	27	53,452	August	28	54,602
		213,766			221,004
March	6	57,052	September	4	54,594
March	13	55,644	September	11	54,519
March	20	56,339	September	18	54,213
March	27	56,409	September	25	54,140
		225,444			217,466
April	3	55,923	October	2	54,050
April	10	56,040	October	9	54,408
April	17	56,368	October	16	56,044
April	24	56,414	October	23	56,128
		224,745	October	30	56,707
					277,337
May	1	59,106			
May	8	56,528	November	6	54,746
May	15	54,730	November	13	57,034
May	22	55,391	November	20	54,957
May	29	54,814	November	27	57,250
		280,769			223,987
June	5	56,186	December	4	57,190
June	12	56,048	December	11	57,123
June	19	55,129	December	18	57,334
June	26	55,108	December	25	57,224
		222,462			228,871

Total issue for twelve months 2,878,799
Weekly average 55,361

As will be noticed, the total number of copies issued during 1909 was 2,878,799. The total issue for 1908 was 2,806,900, an increase of 71,899 copies in 1909 over 1908, or a weekly average increase of 1,382 copies.

PERCENTAGE OF PHYSICIANS RECEIVING THE JOURNAL

This table gives the number of physicians (based on the second edition of the American Medical Directory) in the United States, number receiving THE JOURNAL and the approximate percentage in each state. Copies to physicians in the United States Army, United States Navy, Marine-Hospital Service, etc., omitted:

State.	Physicians in State.	Number Receiving Journal.	Approximate Per Cent.
Alabama	2,287	648	28.3
Arizona	246	142	57.7
Arkansas	2,553	595	23.4
California	4,313	1,871	43.3
Colorado	1,690	798	47.2
Connecticut	1,424	675	47.4
Delaware	220	78	35.4
District of Columbia	1,231	564	45.8
Florida	786	318	40.4
Georgia	2,887	762	26.3
Idaho	343	161	46.9
Illinois	9,744	5,023	51.5
Indiana	5,306	1,779	33.5
Iowa	3,624	1,854	51.1
Kansas	2,650	1,119	42.2
Kentucky	3,708	1,184	31.9
Louisiana	1,798	735	40.8
Maine	1,198	407	33.9
Maryland	2,912	1,006	50.0
Massachusetts	5,577	2,365	42.4
Michigan	4,109	1,806	43.9
Minnesota	2,204	1,288	62.9
Mississippi	2,054	515	25.0
Missouri	6,332	2,047	32.3
Montana	417	219	52.5
Nebraska	1,776	738	41.5
Nevada	177	75	42.3
New Hampshire	679	288	42.4
New Jersey	2,455	977	39.7
New Mexico	367	172	46.8
New York	14,117	4,858	34.4
North Carolina	1,761	886	33.2
North Dakota	552	341	61.7
Ohio	7,838	2,807	35.8
Oklahoma	2,703	672	24.8
Oregon	782	349	44.6
Pennsylvania	11,056	4,686	42.3
Rhode Island	720	317	44.0
South Carolina	1,141	415	36.3
South Dakota	697	328	54.0
Tennessee	3,303	779	23.5
Texas	5,789	1,527	26.3
Utah	359	213	59.3
Vermont	663	211	31.8
Virginia	2,215	843	38.0
Washington	1,404	700	49.8
West Virginia	1,608	568	35.3
Wisconsin	2,518	1,360	54.0
Wyoming	202	86	42.5

The following table shows the number of members and of subscribers for each year for the past ten years:

	Members.	Subscribers.
January 1, 1900	8,445	4,633
January 1, 1901	9,841	8,339
January 1, 1902	11,107	10,795
January 1, 1903	12,553	12,378
January 1, 1904	13,899	14,674
January 1, 1905	17,570	15,698
January 1, 1906	20,826	17,669
January 1, 1907	26,255	20,166
January 1, 1908	29,382	20,880
January 1, 1909	31,999	18,983
January 1, 1910	33,032	19,832

The above table shows that there was an increase of 1,033 in the membership list taking THE JOURNAL, and an increase of 849 in the subscriber's list, or a total net increase of 1,882.

The above do not include *ex-officio* members, exchanges, complimentary copies to libraries, agents, etc.

During the year 1909, 2,706 subscribers were transferred to the membership list.

The actual increase in our mailing list during 1909 was 1,970. During this period, however, there were added to the list 11,504 names. The difference—9,534—represents the discontinuation by death, by ineligibility to membership, by resignation, by non-payment of dues and subscriptions; also a large number were temporarily dropped and restored.

The deaths alone amount to quite a large number. We are not able to give the exact figure. A goodly portion of the members of the Association are elderly men, and the grim reaper each year makes no small inroad on the mailing list. The ratio of deaths among physicians last year was a little over 16 per thousand. The proportion would certainly be this large among our members.

Treasurer's Report

REPORT OF THE TREASURER OF THE AMERICAN MEDICAL ASSOCIATION FOR THE YEAR ENDING DEC. 31, 1909

1909. RECEIPTS	
Jan. 1—Cash balance in First National Bank	$ 3,880.46
Jan. 30—Cash received from Editor of JOURNAL	25,000.00
March 31—Cash received from Editor of JOURNAL	10,000.00
Sept. 14—Interest at 3 per cent. on certificates of deposit in First Trust and Savings Bank	2,244.57
Interest at 2 per cent. on checking account in First National Bank from August to December, 1909, inc. (when balance was over $5,000)	55.69
Interest coupons, 54 $1,000 bonds at 4 per cent	2,160.00
	$ 43,340.72

1909. DISBURSEMENTS	
Jan. 30—By order of Trustees, bought certificate of deposit at 3 per cent. in First Trust and Savings Bank	$ 25,000.00
March 31—By order of Trustees, bought certificate of deposit at 3 per cent. in First Trust and Savings Bank	10,000.00
Dec. 31—Cash balance in checking account First National Bank	8,340.72
	$ 43,340.72

JAN. 1, 1910, PROPERTY OF AMERICAN MEDICAL ASSOCIATION IN HANDS OF TREASURER

Cash balance in checking account First National Bank			$ 8,340.72
Certificates of deposit at 3 per cent. in First Trust and Savings Bank			100,000.00
	Cost.	Par Value.	
35/1000 bonds U. P. Ry., 1st 4s	$ 5,207.50	$ 5,000.00	
5/1000 bonds Erie Ry., 1st 4s	4,932.50	5,000.00	
10/1000 bonds Reading Gen. 1st 4s	9,602.50	10,000.00	
14/1000 bonds Chicago Sch. 1st 4s	15,168.13	14,000.00	
10/1000 bonds A. T. & S. Fe 1st 4s	9,521.25	10,000.00	
10/1000 bonds B. & O. Ry. 1st 4s	9,800.00	10,000.00	
	$54,231.88	$54.000.00	54,000.00
			$162,340.72

Respectfully submitted,

FRANK BILLINGS, *Treasurer.*

Auditor's Report

MARWICK, MITCHELL & CO., CHARTERED ACCOUNTANTS

CHICAGO, Feb. 2, 1910.

To the Board of Trustees of the American Medical Association, Chicago, Ill.

Dear Sirs:

In accordance with your instructions, we have audited the accounts of your Association for the year ended December 31, 1909. We now submit our report thereon, together with the statements detailed in the index appended hereto.

Our examination was conducted along the lines of previous audits and included an inspection of the bonds, which are detailed in Schedule "6," and the certificates of deposit. The cash on hand and in bank was verified by actual count and certification respectively. The vouchers for disbursements were all in order and properly authorized by responsible officers. We made test checks on the voluminous sources of the Association's revenue.

The balance sheet, recorded in Exhibit "A," is in accordance with the books of the Association and presents, in our opinion, a full and fair statement of its financial position on December 31, 1909, as revealed by the books subject, however, to the consideration of the omission of the accrued liability in respect of taxes, and of that in respect of subscriptions and memberships paid in advance. This latter liability is offset in a measure by subscriptions and memberships earned but outstanding, of which no account is taken in the balance sheet. There has also to be considered the probable loss on doubtful accounts receivable.

The following comparative, summarized statement of the assets and liabilities of the Association, as at December 31, 1909 and 1908, is of interest:

	DECEMBER 31—			
	1909	1908	INCREASE	DECREASE
Assets:				
Property and Plant	$173,081.86	$183,737.15	.....	$10,655.29
Investments	154,231.88	119,231.88	$35,000.00	.....
Current Assets	72,148.42	52,844.97	19,303.45	.....
Total Assets	$399,462.16	$355,814.00	$43,648.16	.....
Liabilities	2,926.95	1,146.18	.....	1,780.77
Surplus Assets	$396,535.21	$354,667.82	$41,867.39	

The increase in surplus assets, namely, $41,867.39, arises from the net surplus income of the Association for the year under review. Details of the income account, bringing out this surplus, are shown in Exhibit "B" and supplementary schedules.

A perusal of the foregoing statement will show the disposition of the year's surplus income. It has been invested principally in $35,000.00 of certificates of deposit.

The work of the office force is conducted in an intelligent and accurate manner.

We take pleasure in recording our appreciation of the courtesies extended to our representatives and shall be pleased to furnish any information desired on the accounts. Yours truly,

MARWICK, MITCHELL & CO., Chartered Accountants.

INDEX TO STATEMENTS

EXHIBITS
"A" Balance Sheet as at Dec. 31, 1909.
"B" Income Account for the year ended Dec. 31, 1909.

SCHEDULES
"1" Publication Expenses for the year ended Dec. 31, 1909.
"2" General Expenses for the year ended Dec. 31, 1909.
"3" Atlantic City Session Expenses for the year ended Dec. 31, 1909.
"4" Depreciation Reserved for the year ended Dec. 31, 1909.
"5" Association Expenditures for the year ended Dec. 31, 1909.
"6" Bonds as at Dec. 31, 1909.

EXHIBIT "A"

BALANCE SHEET AS AT DEC. 31, 1909

ASSETS

Property and Plant:		
Real Estate and Buildings		$108,880.82
Machinery		41,456.97
Metal and Type		10,941.87
Furniture and Fixtures		8,955.19
Stereotype Plant		1,661.40
Library		1,185.61
Total Property and Plant		$173,081.86
Investments:		
Bonds at Cost, Schedule "6"		$ 54,231.88
Certificates of Deposit		100,000.00
Total Investments		$154,231.88
Current Assets:		
Cash:		
Commercial National Bank of Chicago	$23,030.51	
First National Bank of Chicago	8,340.72	
Office Fund	50.00	
		31,421.23
Accounts Receivable:		
Advertising	$15,759.92	
Directory	10,393.20	
Reprints	1,273.25	
Jobbing and Miscellaneous	1,730.83	
		29,157.20
Inventory—Materials and Supplies		10,899.88
Insurance Prepaid		460.11
Bills Receivable		210.00
Total Current Assets		72,148.42
Total		$399,462.16

LIABILITIES

Accounts Payable		$ 268.58
Advance Payments on Archives of Internal Medicine		1,587.37
Directory Suspense Account		921.48
Directory Information Account		149.52
Surplus:		
Amount thereof at Dec. 31, 1908	$354,667.82	
Net Surplus Income for the year ended Dec. 31, 1909	41,867.39	
		396,535.21
Total		$399,462.16

EXHIBIT "B"

INCOME ACCOUNT FOR THE YEAR ENDED DEC. 31, 1909

Revenue:		
Memberships		$147,543.50
JOURNAL Advertising		146,151.19
JOURNAL Subscriptions		97,413.52
Jobbing		29,110.54
Directory		40,533.46
Atlantic City Session		9,037.44
Reprints		7,526.70
Archives of Internal Medicine		5,782.02
Book Account		3,216.58
Physicians' Manual		1,517.94
New and Nonofficial Remedies		559.50
Buttons		361.20
Gross Revenue		$488,753.59
Expenses:		
Publication (Schedule "1")	$266,006.89	
General (Schedule "2")	125,117.99	
Atlantic City Session (Schedule "3")	8,368.10	
Depreciation (Schedule "4")	9,241.82	
		408,734.80
Net Revenue		$ 80,018.79
Other Income:		
Interest on Bonds	$ 2,160.00	
Interest on Treasurer's Account	2,756.65	
House Rental—Less Expenses	2,315.88	
	$ 7,232.53	
Deduct:		
Loss by bad accounts and notes—less recoveries	923.17	
		6,309.36
Gross Income		$ 86,328.15
Deductions from Income:		
Cost of additions to building about to be torn down, previously charged to capital	$ 6,158.03	
Association Expenditures (Schedule "5")	38,302.63	
		44,460.66
Net Income		$ 41,867.49

SCHEDULE "1"

PUBLICATION EXPENSES FOR THE YEAR ENDED DEC. 31, 1909

JOURNAL:		
Materials and Supplies:		
Paper Purchases	$100,800.23	
Paper—Inventory—Decrease	2,096.71	
Ink	3,798.38	
Electros	3,775.93	
Miscellaneous Supplies	2,206.37	
	$112,677.62	
Deduct: Waste Paper Sold	3,879.41	
		$108,798.21
Labor		89,461.60
Binding		2,078.61
Editorials, News and Reporting		8,198.26
Total JOURNAL Publication Expenses		$208,536.68
SECOND EDITION OF DIRECTORY:		
Materials and Supplies	$ 2,749.26	
Salaries	34,113.08	
Information	7,982.86	
Jobbing	4,481.10	
Binding	2,168.50	
Indexing	824.30	
	$ 52,319.10	
Deduct: Directories on hand at Dec. 31, 1909	1,980.00	
Total Directory Publication Expenses		50,339.10
Archives of Internal Medicine		5,390.22
Physicians Manual		947.91
New and Nonofficial Remedies		792.98
Total Publication Expenses		$266,006.89

SCHEDULE "2"

GENERAL EXPENSES FOR THE YEAR ENDED DEC. 31, 1909

Salaries		$ 37,975.29
Postage:		
JOURNAL—Second Class	$21,025.61	
Directory	3,356.33	
Archives of Internal Medicine	333.98	
General	11,056.70	
		35,772.62
Commissions:		
JOURNAL	10,434.09	
Directory	3,030.04	
Archives of Internal Medicine	1,644.91	
Buttons	364.94	
		15,473.98
Plant:		
Repairs and Renewals	$ 2,513.84	
Power	2,435.54	
Light	2,200.32	
Fuel	1,221.06	
Building Maintenance	385.41	
		8,756.17
Insurance and Taxes		2,906.41
Office Jobbing		2,663.08
Discount		2,307.78
Collection Commissions		2,337.94
Express and Cartage:		
On Second Edition Directories	$ 3,517.79	
General	2,102.09	
		5,619.88
Agents' Salaries		1,830.00
Advertising:		
Directory	367.45	
Archives of Internal Medicine	161.60	
		529.05
Exchange		1,443.76
Legal		944.90
Office Supplies		603.71
Traveling Expense		584.05
Telephone and Telegraph		380.61
JOURNALS Returned		75.11
Book Account		2,697.59
Buttons		200.53
Miscellaneous Expense		2,015.53
Total General Expenses		$125,117.99

SCHEDULE "3"

ATLANTIC CITY SESSION EXPENSES FOR THE YEAR ENDED DEC. 31, 1909

President's Reception	$2,222.25
Rentals	1,675.00
Transportation and Board	726.30
Jobbing	640.72
Registration	632.89
Commercial Exhibit	572.30
Badges and Buttons	522.20
Daily Bulletin	450.00
Repairs to Exhibit Hall	423.00
Information Bureau and Post-Office	102.50
Freight and Express	52.33
Dr. Marvel	28.94
Supplies	27.50
Miscellaneous	290.17
Total	$8,368.10

SCHEDULE "4"

DEPRECIATION RESERVED FOR THE YEAR ENDED DEC. 31, 1909

Machinery	$4,606.33
Buildings	2,698.78
Furniture and Fixtures	817.70
Type	458.44
Metal	358.73
Stereotype Plant	184.60
Laboratory Equipment	117.24
Total	$9,241.82

SCHEDULE "5"

ASSOCIATION EXPENSES FOR THE YEAR ENDED DEC. 31, 1909

Pharmacy and Chemistry:		
Salaries	$6,893.08	
Meetings	515.50	
Drugs	221.48	
Postage	189.78	
Supplies	186.21	
Jobbing	165.15	
Analyses	30.00	
Express	22.72	
		$8,223.92
Medical Education:		
Salaries	$3,314.40	
College Inspection	1,052.40	
Meetings	1,273.45	
Postage	172.50	
Jobbing	132.50	
Information	90.75	
Supplies, etc.	33.63	
		6,069.63
Medical Legislation:		
Salaries	$1,404.55	
Expenses—Dr. C. A. L. Reed	793.93	
Meetings	399.84	
Postage	126.00	
Jobbing	87.32	
Information	24.15	
		2,835.79
Board of Public Instructions		598.65
Defense of Medical Research		144.02
Public Education		635.46
Organization:		
Dr. J. N. McCormack—Salary	$6,000.00	
Dr. J. N. McCormack—Expenses	2,113.05	
Dr. J. H. Blackburn—Salary	600.00	
Dr. J. H. Blackburn—Expenses	300.00	
Lectures	442.10	
Jobbing	689.85	
Traveling Expense—Dr. Green	132.70	
Bulletin Postage	51.90	
Express and Telegrams	31.86	
		10,361. 6
Association Account:		
Trustees' Meetings	$3,508.17	
Reporting Sections	1,579.54	
Scientific Research	850.00	
Scientific Exhibit	585.50	
Salary—Assistant to General Secretary	999.99	
Section Secretaries	600.00	
Honorariums	400.00	
Reporting Sections	320.70	
Jobbing	195.78	
Miscellaneous	394.02	
		9,433.70
Total		$38,302.63

SCHEDULE "6"

BONDS AS AT DEC. 31, 1909

	PARTICULARS	PAR VALUE	COST
5	Atchison, Topeka & Sante Fe Ry. Co. 4 per cent. 100-year gold bonds	$ 5,000.00	$ 4,988.75
5	Erie Railroad Co. 4 per cent. gold bonds	5,000.00	4,932.50
5	Baltimore & Ohio Railroad first mortgage 4 per cent. bonds	5,000.00	5,032.50
5	Reading Company general mortgage 4 per cent. bonds	5,000.00	4,870.00
5	Union Pacific Railroad Co. first mortgage 4 per cent. bonds	5,000.00	5,207.50
14	City of Chicago 4 per cent school bonds	14,000.00	15,168.13
5	Reading Company and the Philadelphia & Reading Coal & Iron Co. general mortgage 4 per cent., payable January and July, Nos. 29366, 29367, 24483, 24482, 66964, par value of $1,000.00 each at 94½	5,000.00	4,732.50
5	Atchison, Topeka & Santa Fe Ry. Co. first mortgage 4 per cent bonds payable April and October. Principal due 1995, Nos. 32785, 35162, 40517, 40516, 40515. Par value of $1,000.00 each at 90½	5,000.00	4,532.50
5	Baltimore & Ohio Railroad Co first mortgage 4 per cent. bonds payable April and October. Principal due 1948, Nos. 53591, 53594, 53593, 34986, 34987. Par value of $1,000.00 each at 95	5,000.00	4,767.50
	Total	$54,000.00	$54,231.88

Report of Board of Trustees

Dr. M. L. Harris, Chairman, read the report of the Board of Trustees, which was referred to the Reference Committee on Reports of Officers.

Reference Committees Appointed

REFERENCE COMMITTEE ON REPORTS OF OFFICERS

George W. Guthrie, Pennsylvania, Chairman.

W. B. Russ, Texas. D. S. Fairchild, Iowa.
C. R. P. Fisher, New Jersey. Victor H. Stickney, No. Dakota.

REFERENCE COMMITTEE ON LEGISLATION AND POLITICAL ACTION

J. W. Clemmer, Ohio, Chairman.

Oscar Dowling, Louisiana. G. B. Young, U. S. P. H. & M.-H. S.
M. W. Ireland, U. S. Army. I. C. Chase, Texas.
(Committee on Medical Legislation, ex officio.)

REFERENCE COMMITTEE ON MEDICAL EDUCATION

A. Work, Colorado, Chairman.

Horace D. Arnold, Massachusetts.
T. D. Tuttle, Montana. Joseph Capps, Section on Practice
J. B. Bullit, Mississippi. of Medicine.
(Council on Medical Education, ex-officio.)

REFERENCE COMMITTEE ON SECTIONS AND SECTION WORK

J. E. Weeks, New York, Chairman.

E. Carson Hay, Arkansas. C. J. Smith, Oregon.
Alfred D. Sawyer, Maine. O. J. Brown, Massachusetts.

REFERENCE COMMITTEE ON RULES AND ORDER OF BUSINESS

A. L. Wright, Iowa, Chairman.

D. D. Bosworth, Tennessee. F. W. Robbins, Michigan.
J. Riddle Goffe, New York. J. N. Jenne, Vermont.

REFERENCE COMMITTEE ON HYGIENE AND PUBLIC HEALTH

W. N. Wishard, Indiana, Chairman.

J. H. White, Section on Preventive Medicine and Public Health. William Brumby, Texas.
R. D. Alway, South Dakota.
C. S. Sheldon, Wisconsin.

REFERENCE COMMITTEE ON CONSTITUTION AND BY-LAWS

Alexander R. Craig, Pennsylvania, Chairman.

W. H. Sanders, Alabama. A. T. McCormack, Kentucky.
E. W. Weis, Illinois. Arthur Sweeney, Minnesota.

REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS.

T. A. Woodruff, Section on Ophthalmology, Chairman.

Edwin Walker, Indiana. E. A. Hines, South Carolina.
Ridgely B. Warfield, Maryland. E. J. Goodwin, Missouri.

COMMITTEE ON CREDENTIALS

H. Bert Ellis, California, Chairman.

J. H. J. Upham, Ohio. W. W. Richmond, Kentucky.
D. C. Brown, Connecticut. W. E. Anderson, Virginia.

JUDICIAL COUNCIL

William C. Woodward, District of Columbia, Chairman.

L. M. Shaw, Nebraska. C. S. Huffman, West Virginia.
L. A. Hahn, Oklahoma. G. K. Angle, New Mexico.

THE PRESIDENT: We will now listen to the reports of Standing Committees.

Report of the Judicial Council

DR. C. E. CANTRELL, Texas: As chairman of the Judicial Council, I wish to say that the Council has no report to make inasmuch as nothing has come before us on account of the perfect working of the law settling all ethical matters in the county medical societies and the state associations.

Report of the Committee on Medical Legislation

DR. CHARLES A. L. REED, Ohio, Chairman, read this report.

To the House of Delegates of the American Medical Association:

Your Committee on Medical Legislation submits herewith its annual report and as a part thereof submits copies of the American Medical Association Bulletin for March 15 and May 15, 1910, containing the record of the Joint Conference on a Model Medical Practice Act and the Annual Session of the Legislative Conference held at Chicago, March 1 and 2, 1910.

NATIONAL LEGISLATION

The energies of your committee have been largely devoted to the promotion of national legislation calculated to protect the health interests of the people. The first bill relating to this subject was presented to the Senate Feb. 1, 1910, by Hon. Robt. L. Owen, Senator for Oklahoma, and was entitled "A Bill Establishing a Department of Public Health and for Other Purposes." It stands on the calendar as S. 6049. The same bill was introduced in the House by Mr. Creager, April 15, 1910, and is on the calendar as H. R. 24549. It provides, as the title implies, for the establishment of a Department with a Secretary of Public Health in the Cabinet and for the transfer of existing public health agencies to such department. These provisions, irrespective of details, comprise the principle involved in the bill, a principle so distinctly in consonance with the traditional attitude of the American Medical Association that your representatives, in conference with others interested in the subject, early in March, did not feel at liberty to consider any alternative measure.

As a matter of fact no alternative measure had at that time been presented to the Congress, although since then, on April 22, 1910, Mr. Simmons introduced a bill (H. R. 24827) "Establishing a Department of Public Health and for Other Purposes," the essential difference between it and the Owen bill being that it does not provide for representation in the Cabinet, but places the proposed Department in charge of a "Commissioner of Public Health." Another measure has been introduced by Mr. Mann, which provides for dropping the words "and Marine Hospital" from the "Public Health and Marine-Hospital Service" but without otherwise modifying the status of the bureau under that name now occupying a subordinate relation in the Treasury Department. Another bill has been introduced to create a "National Bureau of Health."

The Owen bill has been and is under consideration by the Senate Commitee on Public Health and National Quarantine and several hearings have been had on the subject. These hearings have been largely attended by representatives of distinctly lay interests as well as your Committee, all of whom have urged the passage of a measure embodying the principle of the Owen bill. The details of the measure, as desired and expected by its author, are to be elaborated in Committee. In the meantime, the general proposition based on all the bills now before Congress, has been under consideration by the Committee on Interstate and Foreign Commerce of the House.

Whether any bill will be reported out of either Committee at the present session of Congress cannot be determined at the date that this report is written. Your Committee, however, lays before you with satisfaction the fact that the whole proposition is now pending in Congress; that advanced national legislation along public health lines has been urged by President Taft in his measure to Congress; that he stands ready at the proper time to give the movement further support by a special message; that the people are aroused to the importance of the subject as never before in the history of the country; and, finally, that the character of the opposition is such as to impress the people that they must support this movement for their own protection against dangerous and remediable conditions as well as against the rapacity of ignorant, selfish and venal interests.

LEGISLATION IN THE STATES

During the past winter the legislature has been in session in the following states—Georgia, Kentucky, Virginia, Maryland, Massachusetts, Mississippi, New Jersey, New York, Ohio, Rhode Island, South Carolina and Louisiana. It is impossible to enumerate all of the bills introduced into the legislatures of the various states but a few of them deserve comment.

MASSACHUSETTS

As is the custom in this state a large number of bills of interest to the medical profession have been introduced to the legislature this year calling for much time and labor in their defense or in opposition. With one exception the results of our labors have been fairly satisfactory. The exception alluded to was the bill giving the courts the common law power, already in force in the Federal courts and in those of some of the states, to charge juries upon the expert medical evidence. The bill was reported favorably by the Joint Judiciary Committee, but was rejected in the House.

Among the numerous bills presented, the following were enacted: The creation of a detention hospital for the temporary reception of persons with mental disturbances, who were formerly sent to police stations, etc.; a state board of registration for nurses. Requiring the use of a prophylactic for ophthalmia neonatorum. Regulating the sale of morphin, cocain, etc. Restriction of the use of public drinking cups. Providing for medical inspection of working children. A commission to investigate the increase or otherwise of criminals, mental defectives, epileptics, etc. A bill permitting cities and towns to maintain sanatoria for the care of tuberculosis patients. (The state now has four large hospitals for the care of these people in all stages of the disease.) A bill establishing small school traveling exhibits of tuberculosis.

The following bills failed of enactment: Optometry, 162 to 58. Anti-vaccination. Privileged communications between physician and patient. Healing by unregistered physicians. Bill requiring "Eddyites," hypnotists, etc., to be registered as

physicians are. A bill prohibiting the reappointment of members of the state board of registration in medicine. Bill requiring a diploma before taking examination for license to practice medicine. A bill requiring medical instruction in the public schools was given leave to withdraw. The bill making the state Food and Drug law conform to the Federal law was rejected, as in the opinion of the state board of health, it would lower the standard of our state law. A bill allowing appeals from decisions of boards of health and one placing medical schools under the supervision of the Board of Education were rejected.

KENTUCKY

The following bills became laws: an abortion-bill, making the woman a competent witness against the physician or the person inducing the abortion and relieving her of responsibility in case she testified; a vital statistic bill, providing for the registration of births and deaths; an appropriation bill providing $30,000 for the state board of health and $10,000 for a hospital for incurables. The optometry bill and the bill appropriating $150,000 for a medical department of the state university, were defeated.

MARYLAND

A pure food bill and midwifery bill, a lunacy law and sanitary bill were passed by the legislature and signed by the governor. The optometry bill passed both houses but was vetoed by the governor. A bill providing for Pasteur treatment of all persons exposed to hydrophobia passed the legislature but was vetoed. A bill reorganizing the board of health became a law. Anti-vaccination and expert testimony bills failed to pass.

NEW JERSEY

In New Jersey, a new medical practice act, known as the Ramsey bill, providing for a board composed of five regulars, three homeopaths, one eclectic and one osteopath, passed both houses but was vetoed by Governor Fort. An anti-vivisection bill failed to become a law.

NEW YORK

The principal fight in New York was centered around the anti-vivisection bill, a determined effort to pass which was made by the advocates of state restriction of animal experimentation. So far the bill has failed of passage.

OHIO

A large number of bills of interest to the medical profession were introduced of which the following were passed: bill creating the office of state inspector of plumbing; bill restricting the sale of cocain; a criminal abortion bill granting immunity to women and accepting dying declarations; a bill providing for elementary schools for tubercular children. The following bills were introduced but failed to pass: bill authorizing the state board of health to establish a bureau of infectious diseases; bill providing for medical inspection of school children; bill regulating itinerant vending of medicines and nostrums; a medical advertising bill; a Christian Science bill; a bill providing for the sterilization of criminal and defective classes. The legislature passed a bill creating a state board of optometry but it was promptly vetoed by the Governor in one of the strongest presentations of the subject that has yet appeared.

MISSISSIPPI

The following measures, endorsed by the state medical association were introduced into the state legislature: amendment to the medical practice act; a vital statistics bill; midwifery bill and a bill restricting the sale of cocain.

WASHINGTON

A new medical practice act was adopted in this state. An expert testimony bill failed to pass.

VIRGINIA

A bill providing a state board of examiners for chiropractice failed to pass.

LOUISIANA

The Louisiana legislature did not convene until May. The only measure reported so far is a bill for the collection of vital statistics which, it is hoped, will become a law.

BUREAU OF MEDICAL LEGISLATION

The work of the Bureau of Medical Legislation has been continued as outlined in last year's report. There is a decided and gratifying increase in the use being made of this bureau by state boards of health, medical examining boards, officers of state societies and members of the profession in general. In accordance with the instructions of the Committee, the secretary has secured copies of public health laws of the various states. These were collected with a view to the publication of a handbook on medical legislation. Complete copies of all laws have been received from all of the states except Arkansas, Oregon, South Dakota, Idaho, New Mexico and South Carolina. The two latter states are at present preparing the material for the bureau but it has not yet been received. There are at present on file in the bureau over 300 complete laws, referring to various public health matters and covering 43 states. It was found that the publication of the text of the laws complete would involve the preparation of a volume of over 2,000 pages and that the demand for such a book was too limited to justify the expense involved, furthermore, the present crowded condition of the mechanical department of the American Medical Association has made it impossible up to the present to issue such a volume. When the Association has completed its new building it may be possible to issue a volume containing abstracts of these public health laws.

The collection and classification of supreme court decisions regarding medical practice acts has been practically completed. We now have on hand about 200 supreme court decisions, classified and indexed, as well as reference to court reports. But little additional matter is needed to prepare this matter for publication and it will probably be issued in book form as soon as possible. The same work is also being carried on regarding decisions of supreme courts interpreting public health laws.

COMMITTEE FOR THE RELIEF OF MAJOR CARROLL'S WIDOW

At the Washington Conference in 1909, a committee composed of one member from each of the three government services, one member from the District of Columbia and one member at large was appointed to raise by subscription the money necessary to pay off the mortgage on the home purchased by Major James Carroll for his family just previous to his death. This committee consisted of Major M. W. Ireland, chairman, U. S. A., Surgeon W. H. Bell, U. S. N., Surgeon John F. Anderson, U. S. P. H. & M.-H. S., Dr. John D. Thomas, District of Columbia, and Dr. A. S. von Mansfelde of Nebraska. It rendered a partial report at the Atlantic City Session in 1909. At the Chicago Conference on March 2, the committee reported that the entire indebtedness against the property had been wiped out and that the committee now held the property in trust for Mrs. Carroll and that it had in its possession $627.57 over and above all requirements which it was ordered to expend for the benefit of Mrs. Carroll and her family. The total amount raised by the committee, as shown by its final report, was $8,431.55. The committee wishes to call attention to the admirable and expeditious manner in which this money was raised as well as the generous response to requests for contributions. Members of the Association will remember the long delays and difficulties involved in collecting subscriptions for the various memorials which the Association has from time to time undertaken to establish. Most of them have required years of effort. The committee for the relief of Major Carroll's widow not only was able to subscribe and collect the entire amount needed in a very few weeks but actually collected more than was needed and finally found it necessary to publish several requests to the profession to cease sending in contributions.

CONFERENCE ON A MODEL MEDICAL PRACTICE ACT

In accordance with the instructions of the House of Delegates, issued to the Committee at the Atlantic City Session in 1909, a joint conference with the Council on Medical Education was arranged for February 28 to March 2, 1910, in Chicago. The full proceedings of the Conference appear in the *American Medical Association Bulletin* for January, March and May, the January number being held until after the conference in order to include the proceedings. The three days' session was largely attended, as shown by the registration of 167. The proceedings constitute probably the most exhaustive and careful consideration of the question of medical practice ever secured. The discussion held Tuesday morning and evening and the four papers presented at the afternoon session on Tuesday, cover practically every phase of the question. The proceedings show clearly that we have by no means as yet secured unanimity among our own members as to the fundamental principles underlying the regulation of the practice of medicine and that much study and careful discussion will be necessary before uniformity can be secured, even on essential points. By instructions of the conference the work of formulating a model act was assigned to a committee appointed by the chair and consisting of Dr. C. S. Bacon, chairman, Chicago, Dr. S. D. Van Meter, Colorado, Dr. W. H. Sawyer, Michigan, Dr. F. J. Lutz, Missouri, and Dr. A.

R. Craig, Pennsylvania. To this committee was referred all the material on this subject in order that they might draft a bill for submission and further consideration. Dr. S. D. Van Meter of Colorado has submitted a bill as a basis for discussion and criticism, which has not yet been acted on by the committee. We submit it herewith for the consideration and criticism of the House of Delegates.

A BILL FOR AN ACT TO PROTECT THE PUBLIC HEALTH AND REGULATE THE PRACTICE OF MEDICINE

Be it enacted, etc.

SECTION 1. A board is hereby established to be known by the name and style of the State Board of Medical Examiners. Said board shall be composed of nine practicing physicians of integrity and ability, who shall be residents of, and have been duly licensed to practice medicine in this State, and who shall have been graduated from medical schools of high educational requirements and standing, and who shall have been engaged in the active practice of their profession within this State for a period of at least five years. Said board shall perform such duties, and possess and exercise such powers, relative to the protection of the public health and the control and regulation of the practice of medicine in this State as shall by law be prescribed.

SEC. 2. The Governor shall appoint nine physicians, who shall possess the qualification specified in Section 1 of this act, to constitute the members of said board. Said members shall be so classified by the Governor that the term of office of three shall expire in two, three in four and three in six years from the date of appointment. Biennially thereafter the Governor shall appoint three members, who shall possess the qualifications as specified in section 1 of this act, each to serve for the term of six years; and he shall fill vacancies in the membership of said board for unexpired terms as soon as practicable. Said board shall biennially elect a president, a vice-president and a secretary-treasurer from their membership, and shall adopt a seal, which they shall affix to all licenses issued by them. They shall, from time to time, adopt such rules and regulations as they may deem necessary for the performance of their duties, and a schedule of minimum educational requirements, which shall be without prejudice, partiality or discrimination as to schools of systems of practice of medicine. When an applicant for a license offers to the board satisfactory proof that he has complied with such educational requirements as are specified in said schedule, the board shall accept such proof as sufficient evidence of the educational qualifications of the applicant to entitle him to a license without examination. Said board shall meet in the city of ....., on the first Tuesday of January, April, July and October of each calendar year, and at such other times and places as may be designated by them as necessary for the performance of their duties.

SEC. 3. Said board shall have authority to administer oaths, to summon witnesses and to take testimony in all matters relating to their duties. When the board in the transaction of any of their business, or in the conduct of any hearing, or when any person interested in any such business or hearing, shall desire to secure the presence or testimony of any person before said board, said board, or such person, may procure subpoenas from the clerk of the ..... court of the county wherein such business or hearing is to be transacted or conducted before said board, and the clerk of such court is hereby directed to issue such subpoenas, in the name of the people of the State, commanding the persons whose names shall be given to such clerk by said board, or by such person so interested in such business or hearing, to appear before said board at a certain time and place fixed by said board for the transaction of such business or conduct of such hearing and then and there to testify in the matter of such business or in such hearing. If any person so commanded to appear and testify shall fail or refuse to obey such subpoena, he shall be dealt with by said ..... Court in the same manner and to the same effect as though such subpoena had commanded such person to appear and testify in a cause on trial in said court. Fees, or other charges or payments, which may be demanded by any person so commanded to appear and testify shall be only those which may be demanded by witnesses in causes in the ..... Court and only under the same circumstances. Such subpoenas shall be served in the same manner as are subpoenas for trials in the ..... Court, and they shall be in substantially the same form. Said board shall issue licenses to practice medicine to all persons who shall furnish satisfactory evidence of qualifications to do so under the provisions of this act and the rules and regulations of the board. Such licenses shall be signed by the president and attested by the secretary-treasurer of the board under their seal. It shall be the duty of the secretary-treasurer under the direction of the board personally or by a deputy duly authorized thereunto by said board to aid the several district attorneys of the State in the enforcement of this act and in the prosecution of all persons who have violated any of its provisions.

SEC. 4. No person shall practice medicine in this State unless he shall have made application to said State Board of Medical Examiners, through the secretary-treasurer thereof, upon such form and in such manner as shall be adopted and prescribed by said board, for a license so to do, and shall have obtained from said board and shall possess in full force and virtue a valid license so to do; and any person who shall practice medicine in this State without having made such application and having received and without still possessing such a license shall be deemed to have thereby violated the provisions of this act. All applicants for a license to practice medicine or for a restoration of any such license which have been revoked shall furnish the board with satisfactory evidence of good moral character.

SEC. 5. The manner of determining the qualifications of any person to practice medicine shall be such as shall be adopted by the State Board of Medical Examiners. Examinations of applicants for licenses to practice medicine shall be made by said board according to the methods deemed by them to be the most practicable and expeditious to test an applicant's qualifications. Each applicant shall be designated by a number instead of his name, so that his identity shall not be disclosed to the members of the board, until the examinations shall be graded. The subjects of written, oral or clinical examinations for applicants shall be as follows: Anatomy, physiology, chemistry, symptomatology, toxicology, pathology, surgery and obstetrics; but there shall be no examination on materia medica and therapeutics. An applicant's credentials relating to his general reputation, his preliminary education and the courses of study he has pursued; the degrees he has received; the number of years he has been engaged in the lawful practice of medicine; his experience in hospitals, medical departments of the army, navy and public health and marine-hospital service; licenses granted to him by other states and countries; and his experience as a teacher of medicine, shall be given due consideration by the board in determining his qualifications to practice medicine. When convinced by an investigation of an applicant's credentials that he is qualified to practice medicine the board may grant him a licence thereon without examination.

SEC. 6. Every person who shall receive a license from the State Board of Medical Examiners shall have it recorded immediately in the office of the recorder of deeds of the county in which he shall maintain an office for the practice of medicine, and shall likewise have it recorded in any county in which he shall practice medicine regularly. The recorder of deeds of each county in this State shall keep for public inspection, in a book provided for that purpose, a complete list and description of the licenses recorded by him. When any such license shall be presented to him for record he shall stamp or write upon the back thereof his signed memorandum of the date when such license was presented for record. If the name of any person shall not so appear in such book in any particular county in this State in connection with a description of such license provided for in this act, such fact shall be prima facie evidence in any civil or criminal action involving the practice of medicine by such person in such county that such person does not possess in full force or virtue a license to practice medicine in this State.

SEC. 7. The term practice medicine, as used in this act, is hereby defined to mean holding one's self out to the public as being engaged within this State in the diagnosis or treatment of diseases or injuries of human beings; or the suggestion, recommendation or prescribing of any form of treatment for the intended palliation, relief or cure of any physical or mental ailment of any person, with the intention of receiving therefor, either directly or indirectly, any fee, gift or compensation whatsoever; or the maintenance of an office for the examination or treatment of persons afflicted with disease or injury of body or mind; or attaching the title of M.D., surgeon, doctor, or any word or abbreviation to his name, indicative that he is engaged in the treatment or diagnosis of the diseases or injuries of human beings. If any person shall hold himself out to the public as being engaged within this State in the diagnosis or treatment of diseases or injuries of human beings; or shall suggest, recommend or prescribe any form of treatment for the intended palliation, relief or cure of any physical or mental ailment of any person with the intention of receiving therefor, either directly or indirectly, any fee, gift or compensation whatsoever; or shall maintain an office for the examination or treatment of persons afflicted with disease or injury of body or mind; or shall attach the title of M.D., surgeon, doctor or any word or abbreviation to his name indicative that he is engaged in this state in the treatment or diagnosis of diseases or injuries of human beings, and shall not then possess in full force and virtue, a valid license to practice medicine without complying with the provisions of this act and in violation hereof. Nothing in this act shall be construed to prohibit gratuitous service in case of emergency, nor a lawfully practicing physician of another state or territory from attending a particular case in this state.

"[nor the practice of religious tenets or religious rites or ceremonies as a form of religious worship or devotion without charge or compensation for the administration thereof."

The foregoing has no just place in a Model Medical Act, but is recommended as the best manner of meeting church opposition. When it becomes necessary insert this clause in Section 7.

"Nor to prohibit commissioned surgeons of the United States Army, Navy or Public Health and Marine-Hospital Service from performing their lawful duties in this state as such."

The foregoing is unnecessary, but it does no harm.

"Nor to prohibit any person from engaging in the administration of massage or similar manual treatment, when not representing himself as a doctor, physician or surgeon."

The foregoing has no just place in a Model Medical Act, but is recommended as the best manner of meeting opposition from the so-called "non-drug" doctors, such as osteopaths, chiropractics, neuropaths, etc. When it becomes necessary insert this clause in Section 7.]

SEC. 8. The State Board of Medical Examiners may refuse to grant, or may revoke, a license to practice medicine in this state, and may cause a licentiate's name to be removed from the record in the office of any recorder of deeds, upon any of the following grounds, to-wit: The employment of fraud or deception in applying for or securing a license, or in passing the examination provided for in this act; the practice of medicine under a false or assumed name, or in personation of another physician of this state or of any state, territory or foreign country, of a like or different name; the conviction of a felony or of a crime involving moral turpitude; habitual intemperance in the use of ardent spirits, narcotics or stimulants to such an extent as to incapacitate for performance of professional duties; the procuring or aiding or assisting in procuring, or attempting to procure a criminal abortion; negligent or ignorant malpractice resulting in the permanent injury or the death of the patient; the obtaining of a fee, either directly or indirectly, either in money or in the form of anything of value, or in the form of a financial profit, either as personal compensation, or as compensation, charge, profit or gain for an employer, or any other person or persons, on the representation that a manifestly incurable, sick, diseased or injured condition of any person can be permanently cured; causing the publication, circulation, exhibition or display publicly of an advertisement, notice or information of any medicine or means whereby the monthly periods of women can be regulated, or the menses, if suppressed, can be reestablished, or whereby an abortion can be accomplished; causing the publication, circulation, exhibition or display publicly of any advertisement relative to any disease of the sexual organs, or relative to the treatment, alleviation, palliation, cure or prevention of any disease, weakness or condition of the sexual organs.

SEC. 9. Said board in determining whether any applicant for a license to practice medicine is morally, educationally and otherwise qualified to receive such a license shall upon their own initiative

make diligent inquiry and investigation whether such an applicant has at any time done any of the acts constituting any of the foregoing grounds; and they may refuse to grant a license to practice medicine to any person whose after such inquiry and investigation they shall find guilty beyond a reasonable doubt of having done any of such acts. But said board shall not refuse to grant such a license under such circumstances before such applicant has had reasonable opportunity, and at least thirty days' notice, to appear before the board in person and by counsel and present in his behalf such statements, testimony, evidence and argument as he may desire to call to the attention of the board. For the purpose of considering the revocation of any license to practice medicine said board shall have the power upon their own initiative to take notice of the commission by any person holding such a license of any of the acts constituting any of the foregoing grounds, and may make an investigation to determine the probability of the commission of any such act by any such person, and, if they find such probability great, they shall notify such person of such finding, and they shall fix and give thirty days' notice to him of the time and place and the particular grounds when, where and upon which they will conduct a hearing for the presentation of evidence as to whether he has committed any of said acts constituting any of such grounds. At such hearing such person shall be accorded a reasonable opportunity to present to the board in his defense in person and by counsel, such statements, testimony, evidence and argument as he may desire to call to the attention of the board. Any person may file a complaint before the State Board of Medical Examiners against any person who holds a license to practice medicine under the laws of this state, or who is an applicant for such a license, with a view of having the board revoke or refuse to grant such a license, on any of the foregoing grounds. In case any such complaint is filed against any such person, he shall be given a hearing thereon by the board. A copy of such complaint, together with a notice of at least thirty days of the time and place when said board will conduct a hearing thereon, shall be given each person against whom such complaint has been made and he shall be accorded a reasonable opportunity to present to the board in his defense in person and by counsel, such statements, testimony, evidence and arguments as he may desire to call to the attention of the board. The State Board of Medical Examiners may at any time after the refusal or revocation of a license as aforesaid, grant or restore, such a license to the person affected. Any person to whom such a license is so restored shall pay to the secretary-treasurer a fee of ten dollars upon the granting thereof. The action of the State Board of Medical Examiners in refusing to grant or in revoking a license to practice medicine may be reviewed by the ..... Court under the common law writ of certiorari.

SEC. 10. Any person who shall practice medicine in this state without complying with the provisions of this act, or any person who shall violate any of the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than fifty dollars nor more than three hundred dollars, or by imprisonment in the county jail for not less than ten days nor more than thirty days, or by both, in the discretion of the court. Any person who shall present or attempt to file as his own the diploma or certificate or credentials of another, or who shall give false evidence or present any altered or forged instrument or writing of any kind to the State Board of Medical Examiners, or any member thereof, in connection with an application for a license to practice medicine, or in any hearing before said board, or who shall practice medicine under a false or assumed name, or who shall falsely personate another practitioner of a like or different name, shall be deemed guilty of a felony, and upon conviction thereof shall be punished by imprisonment in the State Penitentiary for a term of not less than one year, nor more than ten years, at hard labor.

SEC. 11. Each applicant for a license to practice medicine shall pay to the secretary-treasurer of the State Board of Medical Examiners a fee of twenty-five dollars, which shall accompany the application.

SEC. 12. All fees received by the State Board of Medical Examiners and all fines collected by any officer of the law under this act, shall be paid to the secretary-treasurer of said board, who shall, at the end of each and every month, deposit the same with the State Treasurer, and the said State Treasurer shall place said money so received in a special fund to be known as the fund of the State Board of Medical Examiners, and shall pay the same out on warrants drawn by the Auditor of the State therefor, upon vouchers issued and signed by the president and secretary-treasurer of said board. Said moneys so received and placed in said fund may be used by the State Board of Medical Examiners in defraying their expenses in carrying out the provisions of this act. The secretary-treasurer of said board shall keep a true and accurate account of all funds received and all vouchers issued by the board; and on the first day of ..... of each year he shall file with the governor of the state a report of all receipts and disbursements for said board for the preceding fiscal year. Members of said board shall receive a per diem for the time during which they shall be actually engaged in the discharge of their duties; and the secretary-treasurer shall receive a salary; said per diem and salary shall be fixed by the board, and, together with other expenses, shall be paid out of said fund of the State Board of Medical Examiners.

COOPERATION IN THE CONFERENCE ON UNIFORM STATE LAWS CALLED BY THE NATIONAL CIVIC FEDERATION

Two members of the National Legislative Committee and the General Secretary of the American Medical Association represented the American Medical Association in this conference which was composed of members of the various state commissions of uniform laws, representatives of most of the important commercial and civic clubs and other organizations of the country, including the insurance companies and labor organizations. Dr. Simmons was made secretary of the committee on resolution, and succeeded in getting incorporated into the resolutions which were adopted by the conference, one favoring uniform state laws on Foods and Drugs, one on Uniform Vital Statistics and one favoring a uniform medical practice act. The Civic Federation has since undertaken to establish branches in each of the states as state councils on uniformity in laws and it is hoped that through these agencies the efficiency of the work of the state commissions on uniform state laws will be greatly increased. It is also expected that the cooperation of the Civic Federation and its branches and that of the commissions on uniform laws will help greatly in securing the passage of uniform laws on vital statistics, pure foods and drugs, medical practice and other subjects in which the medical profession is vitally interested.

PROSPECTIVE STATE LEGISLATION

During the winter of 1910-11 the legislatures will meet in thirty-six states. The indications are that there will be a flood of objectionable bills introduced, especially osteopathy, optometry, anti-vivisection, anti-vaccination, Christian Science, drugless healer, etc. Only by the most untiring efforts and ceaseless vigilance can the passage of these pernicious measures be prevented. The Committee and the Bureau therefore ask for the heartiest cooperation of state associations and legislative committees as well as the support of all members of the organization in their efforts to prevent the breaking down of laws for the protection of the public health in the various states.

BUREAU OF PUBLICITY

The Committee has learned from the experience of past years, both in national and state legislative campaigns, that any effort to secure the adoption of desirable laws for the protection of the public health, either in state legislatures or in Congress, must, if successful, be preceded by a campaign of publicity and public education in order that the people and their representatives in legislative assemblies may understand the necessity of such laws. Education not only of the general public but of the medical profession as well is also a necessary part of any campaign for better conditions. For many years the use of newspapers, magazines and other means of influencing public sentiment has been practically monopolized by commercial interests who had personal and in many cases mercenary reasons for desiring the support of the public. The medical profession in past years has been far too negligent in this particular. In order to accomplish anything of permanent value we must have the support and cooperation of public sentiment. This can only be secured through public enlightenment of our aims and motives. Public education must necessarily precede legislation and the only rational plan is for such instruction to be in the hands of the same body as that charged with the oversight of legislative matters. Both for financial reasons and because the committee did not desire to conflict with any other committees or boards of the Association, the organization of a Department of Publicity has been deferred although the necessity for it has been apparent. The Committee, therefore, strongly urges that it be authorized to establish a press bureau for the education of public opinion both on general health topics and as a precedent measure for any legislative campaign. The time has passed when any fears as to the danger of such a course being regarded as undignified and unprofessional should deter us. If the American public is not informed and enlightened by the reputable medical profession it will be biased and influenced by the quack, the charlatan, the manufacturer of impure and adulterated foods and drugs and by all the other selfish interests which have so long preyed on the people.

Respectfully submitted,

CHARLES A. L. REED, Chairman,
CHARLES S. BACON,
GEORGE W. GAY,
FREDERICK R. GREEN, Secretary.

DR. REED TENDERS RESIGNATION

To the President and House of Delegates:—I beg leave herewith to present my resignation as a member of the Committee on Medical Legislation, to become effective on the selection of my successor at the present session of the Association.

In taking this step at this time I deem it important to explain that I tendered my resignation to the President in October of last year, but that I subsequently withdrew the same on the representation that it was impracticable to fill the vacancy, *ad interim*, and I knew that the pressure of duties on the Committee made it of the highest importance that it should be in working condition during the legislative and congressional period embraced by the last eight months. Now, however, that that period has practically passed, or at least will conclude with the adjournment of the Congress within a few weeks, and in view of the fact that the House of Delegates now in session can fill the vacancy thus created, I renew my resignation for the reasons that actuated me in the first instance.

EXPANSION OF LEGISLATIVE ORGANIZATION

I desire that these reasons shall be distinctly understood. In the first place I have been honored with this position for the last eight years, which I look upon as a longer period than should be occupied by any one man in the chairmanship of any one committee in an organization of this representative character. In the next place, in view of the imperative demands of my practice, the tax in point of time, money and energy thus imposed is more than should be expected of any one person for so long a time. And, finally, the responsibilities in behalf of all the people, responsibilities that naturally rest on this Association, responsibilities that it cannot and ought not evade, but responsibilities that must be discharged through your legislative organization, make it imperative that that legislative organization, while retaining its present essential features, must be placed upon a different basis. I urge this view in full recognition of the high efficiency that has been displayed by your National Legislative Council and by the National Auxiliary Legislative Committee, the continuance of both of which, in their present forms, I urge as vital to the perpetuity of our influence in determining affairs in this country. The central Legislative Committee ought, however, to be brought into association and correlation with every other committee of whatever character, the object of which is to disseminate knowledge for the safe guidance of the people. This can only be done by a strong cohesive organization in which there must be the largest liberty of individual opinion but in which the wisdom of the majority shall control and from which mere obstructionists must be eliminated with as little ceremony as may be compatible with good manners and established forms.

The whole legislative and educational organization must furthermore be given status as a Council which, in this Association has come to imply the maximum of dignity and force. But even if all these changes were made, this propaganda in behalf of the people must still fall short of a full measure of success unless it is organized on what, for a better designation, must be called business principles. By this I mean that the Bureau of Legislation at Chicago, efficient as it is, must be strengthened and its scope widened. The Chairmanship of the Council of Legislation must command all the time of a capable member who should be adequately paid for his labors. The time has passed when any organization, however altruistic its purposes, can throw the whole burden of its duties on a single person and expect to pay the obligation by the honor thus conferred. Then let every person take his turn and do his duty in a designated place but refrain from participation in sporadic movements for personal conspicuity to be attained by the usurpation of functions already provided for in the more broadly organized propaganda.

COÖPERATION IN STATE LEGISLATION

And now that I have said this much I feel that, in justice to the House of Delegates, to my successors, and to myself, I cannot permit my resignation to go forward without mentioning certain other impressions that have been forced on me by my eight years' experience but, which, being personal to myself, may not with propriety be embraced in the formal report of the Committee. These impressions relate to legislative work in, respectively, the states and the Nation. With respect to the states, I may observe that the measures pending before the various legislatures have been kept under the cognizance only through the instrumentality of the Bureau of Legislation. This ought to be kept up and the Bureau ought to be in position, wherever occasion requires, to furnish state legislative committees with literature for their information and guidance. It is, however, to my mind extremely doubtful whether the National organization should ever take a hand in either the promotion or defeat of proposed legislation in any of the states, even when state committees, from a probably mistaken sense of weakness, should request such cooperation.

For any member of the National organization, not a resident of a given state, to appear before the legislature of that state either for or against a given measure, would, under ordinary circumstances, tend to prejudice the cause at issue before the legislators.

UNIFORMITY, LICENSURE AND RECIPROCITY

Model acts or standard forms of legislation for the promotion of the general welfare, but coming under the purview of the police powers of the respective states may, however, be formulated with propriety by a central organization and sent to the different state organizations for presentation to their respective legislatures. In this connection, however, it is to be remembered that the variations in the constitutions of different states necessitate corresponding variations in the statutes enacted in pursuance and by authority of such constitutions. This fact of itself must defeat the absolute uniformity of state legislation along certain lines however much the principles of such legislation may be in unison.

The principle of uniformity in state legislation governing the practice of medicine has been urged with respect to reciprocity in state licensure. At present no two states have identical laws, yet reciprocity in licensure obtains to some extent between a majority of states. From this it would seem that absolute uniformity of statutes is not essential to the object in view. Most states extend reciprocity only to those who have procured license by examination and decline to extend the same privilege to members of the profession, whether graduates or not—whether lowly or honored, humble or distinguished—who obtained license by registration at the time the respective acts went into effect. Every state that maintains this restriction perpetrates not only an injustice but an insult not only to the majority of the reputable physicians within its own borders, but to those within the borders of every other state in the Union. The pretention that the so-called "legal practitioners"—those to whom license was given on years-of-practice qualification—are any less qualified intellectually or morally, in any one state than in another, or that they are any more disposed to migrate to or from one state than to or from some other state, would probably be exploded in the light of the real facts were they once authoritatively ascertained. That there is any essential inequality between the qualifications of the examiners themselves when selected by political methods in the different states is, likewise, probably far from the facts. That these selections are generally, but not always made on a political basis, is a matter of common knowledge. "Who shall examine the examiners?" has therefore come to be something more than a derisive pleasantry. It is indeed probably true that the majority of state examiners selected by these political methods and vested with the duty of judging the work of our ablest universities, could not to-day pass the matriculation examination, let alone the examination for licensure prescribed by themselves and by their respective boards.

The proscriptive clause in many of the state laws, or in the regulations passed in pursuance of such laws, whereby medical teachers are excluded from membership in examining boards, not only deprives these bodies of the ability represented by the leaders of the profession in their respective states, but is an obvious invasion of personal rights that would not stand the test if carried to the courts. But these conditions are so nearly uniform in the respective states that they to-day, under the comity of states and with but slight adjustment of differences, demand the very general adoption of a policy of wide open reciprocity. At any rate these and other matters demand most careful consideration before anything like a standard act is promulgated under the auspices and with the approval of the American Medical Association.

EXISTING STATE MEDICAL LAWS AND THE PROPAGATION OF CULTS

One of the other matters to which I invoke your attention is the fact, as I see it and believe it to exist, that existing state medical laws are directly responsible for the propagation of sectarianism in medicine and that they have failed properly to protect the people against ignorant, unscrupulous, rapacious and otherwise dangerous cults. This conclusion, forced on me by several years' study of legislative, professional and social tendencies, is to-day confirmed by conditions as they actually exist, with only a few honorable exceptions, in every state in the Union. These conditions call for very careful study of cause and effect—too comprehensive to be treated in detail at this time—but I feel that I may take opportunity only to say that these laws, while originally seeking to do away with sectarianism based on half knowledge or no knowledge, did so by legitimatizing the better educated sects in existence at the time the laws were passed. But the sects were recognized either by separate boards, or in the personnel of so-called mixed boards, the latter arrangement being effected in some instances by agreement with the appointing power. In each instance "systems" or "methods of cure" were recognized in some way in the preliminary registrations or by special questions on therapeutics in the later examinations for licensure.

Now if these sects were recognized why should not other sects be recognized? And if these particular sects may prescribe the knowledge, both general and special, by which they shall become legitimatized, why may not other sects prescribe the knowledge, both general and special, by which they in turn shall be legitimatized? The error was in the beginning when there was, as there is now, practical agreement between these better educated sects on what shall comprise the general fundamental knowledge that ought to be possessed by everybody who professionally assumes the care of disease or injury. But this

was at a time when the special knowledge that characterized such other educated sects was more insisted on than it is to-day. In other words each such sect then went just as far as the others would let it in getting its peculiar pills and potions into the statute books. Varnish it as you may, that was the fact then, and it remains a fact to-day.

But a law differs from a statute in that the law is a regulation and only such regulation of society as the people will support. It is important to bear this distinction in mind because, whatever my be the provisions of the statutes, the people never have, never will, and, in my opinion, never ought to give the force of law to any statute that, even inferentially or constructively, seeks to give monopoly of cure to either men, methods, cults or systems. I am convinced that, whatever may be placed in the statutes, the most that the law will ever do will be to prescribe and enforce a common, safe and rational foundation for all persons or plans of cure—all cults, systems or denominations of medicine—that have for their object the professional care and conduct of disease or injury of the human family.

This foundation must consist of a knowledge not only of the fundamental studies for everybody, but of human anatomy, physiology, bacteriology, pathology, diagnosis, hygiene, sanitation, obstetrics and surgery, and such allied branches as may be essential to a comprehension of these complex topics. The always more or less speculative question of remedies and cure in their broadest sense ought to be and must be left to the intelligence of one thus otherwise equipped. All cults standing on such a foundation may be considered safe. The attempt to do more will defeat the object in view as that object is to-day being defeated. The attempt to do less will be to fail to give society the protection to which it is entitled. To defer the adoption of this rational basis for our medical legislation will be to await development and multiplication of ignorant cults and isms until by their strength and establishment the necessary reform will be rendered either difficult of accomplishment or impossible. These, too, are considerations to be taken into account before a model practice act is promulgated in the name of the American Medical Association.

THE GUARDIANSHIP OF VICTORY

A victory is not worth gaining unless its fruits are safeguarded against reprisals. This is as true in the matter of progressive medical legislation as it is in warfare between nations. It is, for example, hardly worth while to work seventeen years for a food and drugs act if its power to protect the people is destroyed by executive interpretation in the short space of seventeen months. It is not worth the time and money to establish a national quarantine if by virtue of its uninfluential status it can be browbeaten into ineffectiveness by rapacious commercial interests at infected ports. It is not worth while to create laboratories for hygienic investigation if we are to permit them to ignore the investigation of unknown causes underlying diseases that threaten to decimate the people. We must stand by every vantage point gained in this great movement for the promotion of the general welfare. This can be done only by still further perfecting our already splendid organization and by still further and persistently disseminating its influence throughout society.

To-day, in the movement for a National Department of Health, the isssue is fairly joined between the enlightened element of society under the leadership of the medical profession on the one hand and the ignorant and credulous element of society under the leadership of sinister cults on the other hand. The side will win whose cause best subserves the welfare of the people and that makes the people understand that fact. By this criterion alone shall the contestants be measured and weighed in the final arbitrament. And let it be remembered that this final arbitrament must come at the hands of the plain people whose interests are always first to be considered and without whose support all movements must stop short of progress. This being true, it devolves on every person conversant with the merits of this great movement for the conservation of public health, and on which is predicted our public wealth, to recognize in this question the paramount political issue of the present and succeeding campaign.

THE IMPORTANCE OF POLITICAL ACTION

An issue becomes an issue when it acquires a vote-determining power and not until then. The sooner this particular question thus becomes an issue to be discussed on the hustings and determined at the polls the better for the American people. I am utterly opposed to those who protest against permitting this question to go into politics. The sooner and further we put it into politics and the harder we drive it home with effective organization and courageous leadership the sooner will the voice of science and humanity become effective in the promotion of the general welfare. In that campaign I hope always to be found at my place in the ranks.

I desire to thank the House of Delegates and the members of the American Medical Association for their prolonged manifestations of favor and confidence.

Very respectfully, CHARLES A. L. REED.

Cincinnati, Ohio, May 20, 1910.

DR. EVERETT J. MCKNIGHT, Connecticut, called attention to the omission from the report of the Committee on Medical Legislation of what had been accomplished in Connecticut, although he had sent a report of this work to the Assistant Secretary.

It was moved and seconded that the report of Dr. McKnight be included as a part of the report of the Committee on Medical Legislation.

The motion was carried.

The report was then referred to the Reference Committee on Legislation and Political Action.

THE PRESIDENT: We will now hear the report of the Council on Medical Education, Dr. Arthur D. Bevan, Illinois, Chairman.

Dr. Bevan then read the report, which was referred to the Reference Committee on Medical Education.

Report of the Council on Medical Education

To the Members of the House of Delegates of the American Medical Association:

During the past year the second tour of inspection of the medical colleges of the United States has been completed and much additional data collected. From the fact that the medical colleges of Canada furnish so many medical practitioners to the various states and requests for reliable information regarding them has been lacking, these colleges were included in the second tour of inspection so that now the Council has first hand information regarding all the medical schools of the United States and Canada. Since the completion of the actual inspection work the reports regarding the various colleges have been carefully reviewed and compared department by department with a view of finding the average condition. Incidentally, a mass of other data received from reliable sources was found to corroborate the data obtained by the inspections. From this careful study of the conditions actually existing and with a view of the immediate needs of medical education, the following outline of the "Essentials of an Acceptable Medical College" was prepared. Omitting from consideration a number of the utterly worthless medical colleges this outline represents in the majority of points a line considerably below the average of conditions existing in all the colleges of the United States and Canada. The outline is as follows:

1. Strict enforcement of all standards and requirements, the college itself to be held responsible for any instances where they are not enforced.

2. A requirement for admission of at least a four-year high-school education superimposed on eight years of grammar school work, or the actual equivalent education, this to consist of 14 units as defined by the College Entrance Examining Board and required by the Carnegie Foundation for the Advancement of Teaching.

3. As soon as conditions warrant, the minimum requirement for admission should be enlarged to include at least one year's college work each in physics, chemistry and biology and a reading knowledge of at least one modern language, preferably German or French.

4. A requirement that students be in actual attendance in the college within the first week of each annual session and thereafter.

5. That actual attendance at classes be insisted on except for good cause, such as for sickness, and that no credit be given under any circumstances for less than 80 per cent. of attendance on each course.

6. That advanced standing be granted only to students of other acceptable colleges and that in granting advanced standing there shall be no discrimination against the college's full-course students.

7. Careful and intelligent supervision of the entire school by a dean or other executive officer who holds, and has sufficient authority to carry out, fair ideals of medical education as interpreted by modern demands.

8. A good system of records showing conveniently the credentials, attendance, grades and accounts of the students.

9. A fully graded course covering four years of at least 30 weeks each, exclusive of holidays, and at least 30 hours per

week of actual work; this course should be clearly set forth in a carefully prepared and printed schedule of lectures and classes.

10. Two years of work consisting largely of laboratory work in thoroughly equipped laboratories in anatomy, histology, embryology, physiology, chemistry (inorganic, organic and physiologic), bacteriology, pathology, pharmacology, therapeutics and clinical diagnosis.

11. Two years of clinical work largely in hospitals and dispensaries, with thorough courses in internal medicine (including physical diagnosis, pediatrics, nervous and mental diseases), surgery (including surgical anatomy and operative surgery on the cadaver), obstetrics, gynecology, laryngology, rhinology, ophthalmology, otology, dermatology, hygiene and medical jurisprudence.

12. At least six expert, thoroughly trained instructors in the laboratory branches, salaried so they may devote their entire time to instruction and to that research without which they cannot well keep up with the rapid progress being made in clinical teaching (for senior classes of 100 students or less), these patients to represent in fair proportion all departments of medicine.

17. The college should have additional hospital facilities for children's diseases, contagious diseases and nervous and mental diseases.

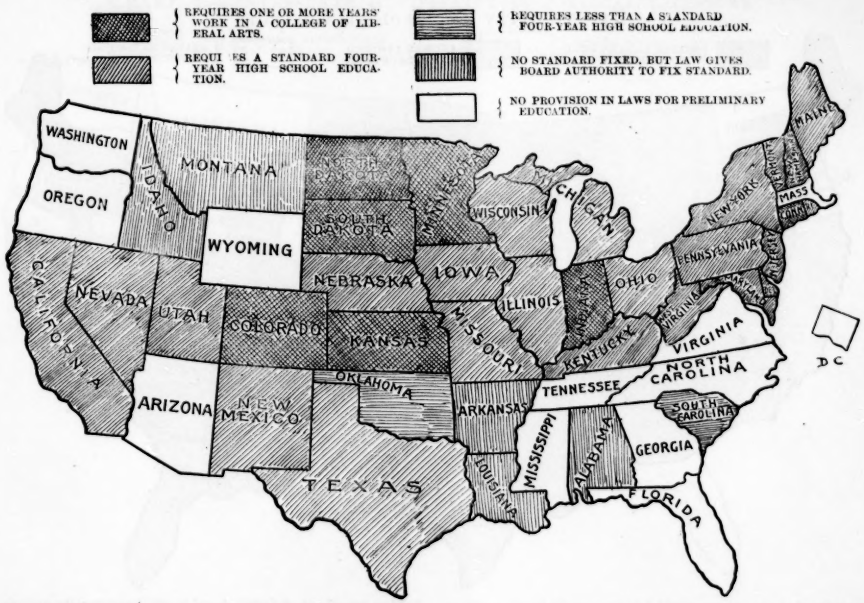
18. Facilities for at least five maternity cases for each senior student, who should have actual charge of these cases under the supervision of the attending physician.

19. Facilities for at least 30 autopsies during each college session (for senior classes of 100 students or less).

20. A dispensary, or out-patient department, under the control of the college, the attendance to be a daily average of 60 cases (for senior classes of 100 students or less), the patients to be carefully classified, good histories and records of the patients to be kept and the material to be well used.

21. The college should have a working medical library to include the more modern text and reference books and 10 or more leading medical periodicals; the library room to be

CHART 1.—STATE BOARD REQUIREMENTS OF PRELIMINARY EDUCATION



their subjects. These instructors should rank sufficiently high to have some voice in the conduct of the college. There should also be a sufficient number of assistants in each department to look after the less important details.

13. The medical teaching should be of at least the same degree of excellence as obtains in our recognized liberal arts colleges and technical schools.

14. The members of the faculty, with a few allowable exceptions, should be graduates of institutions recognized as medical colleges and should have had a training in all departments of medicine. They should be appointed because of their ability as teachers and not because they happen to be on the attending staff of some hospital or for other like reasons.

15. The college should own or entirely control a hospital in order that students may come into close and extended contact with patients under the supervision of the attending staff. The hospital should have a sufficiently large number of patients to permit the student to see and study the common varieties of surgical and medical cases as well as a fair number in each of the so-called specialties.

16. The college should have easily accessible hospital facilities of not less than 200 patients which can be utilized for easily accessible to students during all or the greater part of the day; to have suitable tables and chairs and to have an attendant in charge.

22. A working medical museum having its various anatomic, embryologic, pathologic and other specimens carefully prepared, labeled and indexed so that any specimen may be easily found and employed for teaching purposes.

23. A supply of such useful auxiliary apparatus as a stereopticon, a reflectoscope, carefully prepared charts, embryologic or other models, manikins, dummies for use in bandaging, a Roentgen ray or other apparatus now so generally used in medical teaching.

24. The college should show evidences of reasonably modern methods in all departments and evidences that the equipment and facilities are being intelligently used in the training of medical students.

25. A statement in which the college's requirements for admission, tuition, time of attendance on the classes, sessions and graduation are clearly set forth should be given, together with complete lists of its matriculants and latest graduating class in regular annual catalogues or announcements.

DEFINITIONS OF A MEDICAL COLLEGE* AND A MEDICAL SCHOOL†

"An institution to be ranked as a medical college must have at least six (6) professors giving their entire time to medical work, a graded course of four full years of college grade in medicine, and must require for admission not less than the usual four years of academic or high-school preparation, or its equivalent, in addition to the preacademic or grammar school studies."

By a medical school as differentiated from a medical college is meant a part of a university requiring for admission the equivalent of two years of collegiate work and which offers instruction of not less than two years' duration, leading to the degree of Doctor of Medicine.

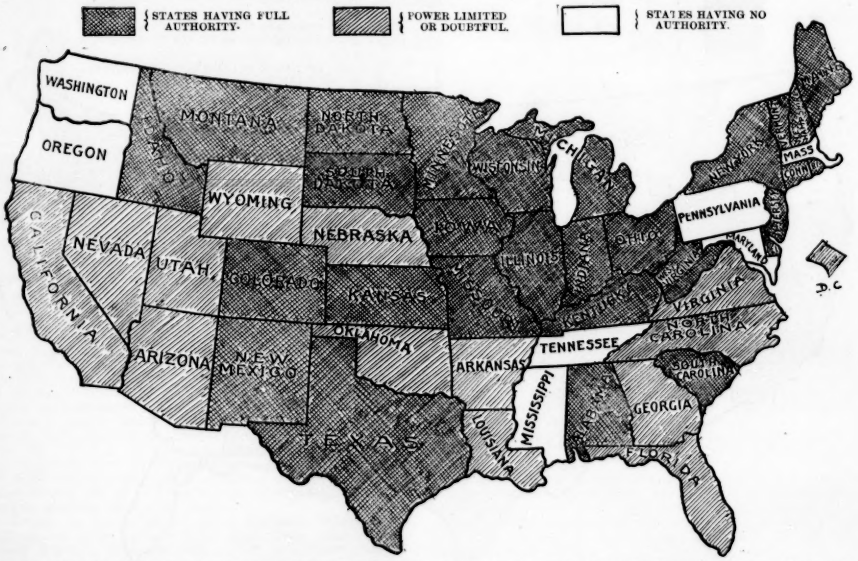
Taking the above outline as a standard, although, as already stated, it represents in most particulars a very low average of the conditions actually existing, the colleges were rated on a civil service basis on the scale of 100. The data relating to each college were grouped under ten general heads in such manner that the groups would have as nearly equal weight as possible, each group allowing a possible 100 points (10 per cent.) and the ten groups aggregating, therefore, a possible 1,000 points (100 per cent.). The ten heads under which the data were arranged are as follows:

1. Showing of graduates before state boards.
2. Requirements and enforcement of satisfactory preliminary education and the granting of advanced standing.
3. Character of curriculum.
4. Medical school buildings.
5. Laboratory facilities and instruction.
6. Dispensary facilities and instruction.
7. Hospital facilities and instruction.
8. Faculty, number of trained teachers, all time instructors, especially of the laboratory branches and extent of research work.
9. Extent to which the school is conducted for properly teaching the science of medicine rather than for the profit of the faculty directly or indirectly.
10. Libraries, museums, charts, etc.

Those colleges receiving a rating of 70 per cent. or above are listed in Class A, those receiving a rating of from 50 to 70 per cent. in Class B, and those rated below 50 per cent. in Class C. Class A colleges may be considered, therefore, as acceptable colleges, those of Class B as colleges which require certain definite improvements to make them acceptable and those of Class C as colleges in which complete reorganization would be required to make them acceptable.

Following the first tour of inspection, the Council was criticized in certain quarters for not publishing outright its classification of medical colleges. That classification was not published, however, because the Council desired to give a number of colleges which were contemplating improvements the opportunity to make good. The delay has been more than justified. Many colleges have secured additional facilities, numerous mergers have been brought about and, on the whole, the situation has greatly improved. The general conditions as revealed by the first inspection, however, were given the widest possible publicity so that at the present time any plea of ignorance of the demands of modern medicine is unworthy of consideration and further delay in the presentation of a classified list would not be justified and would unnecessarily prolong the existence of low standards.

CHART 2.—STATE BOARDS HAVING AUTHORITY TO DETERMINE THE REPUTABILITY OF MEDICAL COLLEGES



With the knowledge that only about half of our medical schools are teaching medicine in an acceptable way and with the power possessed by the majority of the state boards to determine what constitutes a medical school in good standing, it would seem easily possible for the state boards, acting either independently or conjointly, to bring about a rapid improvement.

The teaching of modern medicine is an important function. The turning out of ignorant and ill-qualified physicians is too great a menace to the community to be permitted. The only legal barrier which can protect the public from such incompetent practitioners is the state medical licensing board. There are, however, many factors which are causing confusion in standards and a serious division of responsibility. Medical licensing boards often have to contend with the inconsistency of legislatures, which, after adopting strong medical practice acts providing for fair educational standards, proceed to seriously limit the board's power by granting special legislation for various medical sects with educational standards invariably lower than those required of medical practitioners. Such special legislation has caused much confusion in standards, is

* This definition of a college is based on that given in the revised ordinances of the State of New York, and which also was adopted by the Carnegie Foundation for the Advancement of Teaching as their standard.

† Based on the definition of the term "school," adopted in 1909 by the Association of American Universities.

unfair to medical practitioners and is a wrong to the sick and afflicted who have reason to expect that only thoroughly qualified men will have the legal right to call themselves "doctors" or "physicians."

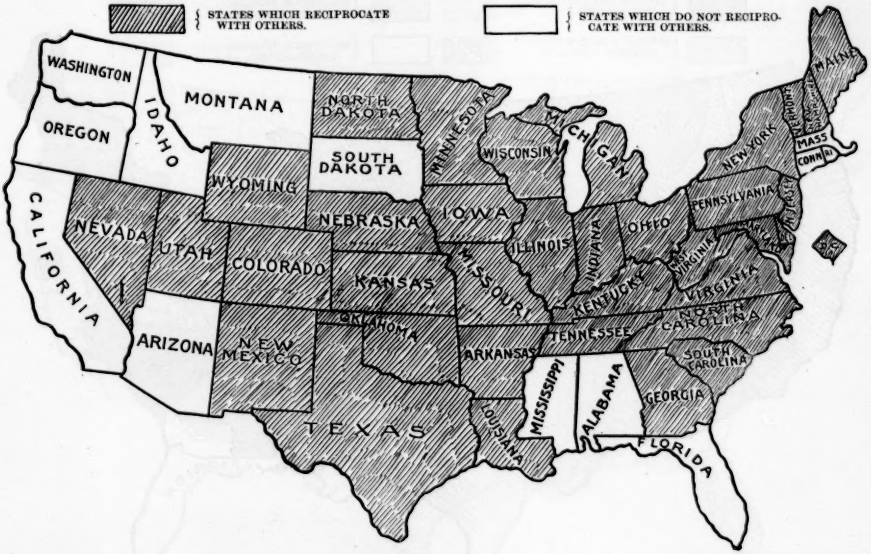
It is of extreme importance, therefore, that each state should have a single licensing board, that its members should be selected because of their special fitness for the work involved, and that this board should be given full authority in the premises. Instead of that we now have in our 49 states and territories 82 different boards of medical examiners including the sectarian boards. In some states the responsibility for defending the public against ignorance, incompetence and fraud, is divided among as many as four separate boards.

It is also of great importance that in each state there should be but one portal of entry to the practice of medicine. Instead of that we have in some states one portal for those with ample qualifications but special gateways by which ignorant and incompetent practitioners, professing to adhere to special methods of treatment, can also get in. In the majority of states after the representatives of these cults are licensed, even

either of the public or of the medical profession and they are often seriously handicapped. The charts herewith presented will give some idea of the conditions existing in the various states against which the licensing boards have to contend and show how necessary it is that the boards receive the undivided support of the medical profession and of the public in the important and difficult work they have to do. That some states have not already been overrun with incompetents is due entirely to the fact that examining boards have found methods by which the unfit could be excluded even with the limited authority parcelled out to them by their legislatures. The time has come, however, when the medical profession and the people of each state should see to it that a single board of competent medical examiners shall control the licensing of all practitioners of medicine and that this board be given full authority. This one barrier between the sick and afflicted and the crowds of ill-trained, incompetent practitioners should be made effective.

Very rapid and very great improvements have been made in medical education in this country in the last few years and it

CHART 3.—INTERSTATE RECIPROCITY IN MEDICAL LICENSURE



with the lower standards, they are granted or allowed to have privileges of unrestricted practice. This one portal of entry, already adopted in some states, should be a fixed educational standard to which all schools professing to train medical practitioners should have to comply. Graduation from a medical college holding to that standard should be required as well as the state license examination. The certificate of graduation would be a guarantee from a reputable medical college that the applicant has had a thorough training, since that college granted him a diploma. The license examination would furnish an added guarantee that the applicant has a knowledge of the fundamental medical sciences and the ability to recognize diseases. In testing the candidate's ability to this extent there should be no division of responsibility, no special standards, or other makeshifts. When it comes to testing the applicant's system of treatment there are numerous methods which would be effective and at the same time be fair to the applicant. For example, some boards have the authority to call in a regularly licensed practitioner of any particular school of medicine to examine in materia medica or in the applicant's special method of treatment.

State licensing boards are fighting the people's battle against ignorance and incompetence, sometimes without the support

is now clear that with the present rate of progress, within a comparatively short time the standards of American medical education and of the American medical schools will compare favorably with those of any country in the world.

The Council believes that the coming American standard will be: A four-year high-school education; a year or two in the university laboratories of chemistry, physics and biology; four years in the medical school and a clinical year as an intern in a hospital.

About two-thirds of the acceptable schools of the country have either already put into force the requirement of college physics, chemistry and biology or will put this requirement into force this fall. This requirement, as you all know, is the one adopted by Germany, Great Britain, France and all of the advanced countries of the world. Medical educators agree that a thorough training in these branches is practically necessary to the student beginning the study of modern medicine.

The adoption of this requirement in some parts of the South may be somewhat delayed owing to the backward state of general education. North of the Ohio River, however, and west of the Mississippi it has already been adopted by almost all of the

better schools. The members of the Council are unanimous in the belief that a degree requirement for admission to the study of medicine is too extreme to be considered in the drawing up of an American standard of medical education.

The second great advance—the addition of a clinical year—as an intern in a hospital after the completion of the work in the medical school is quite as important and in some ways more important than the requirement of the preliminary sciences for admission. This clinical year, however, is largely taking care of itself, as the modern medical student soon learns that a hospital appointment is an essential part of his medical training and makes every effort to secure it. The time will soon arrive, however, when this clinical year will be recognized as a part of the required medical course, and the whole medical curriculum will be arranged and planned with this hospital year in view.

Sixteen medical schools are now requiring as a minimum for entrance two or more years of work in a college of liberal arts in addition to a four year high school education. These colleges and the years when the requirement became effective are as follows:

College.	Begins.
Johns Hopkins University Medical Department	1893
Harvard Medical School	1900
Western Reserve University Medical Department	1901
University of Chicago, Rush Medical College	1904
University of California, Medical Department	1905
University of Minnesota, College of Medicine and Surgery	1907
University of North Dakota, College of Medicine	1907
University of Wisconsin, College of Medicine	1907
Cornell University Medical College	1908
Wake Forest College, School of Medicine	1908
Leland Stanford Junior University, Department of Medicine	1909
Yale Medical School	1909
University of Kansas, School of Medicine	1909
University of Michigan, College of Medicine	1909
University of Nebraska, College of Medicine	1909
University of South Dakota, College of Medicine	1909

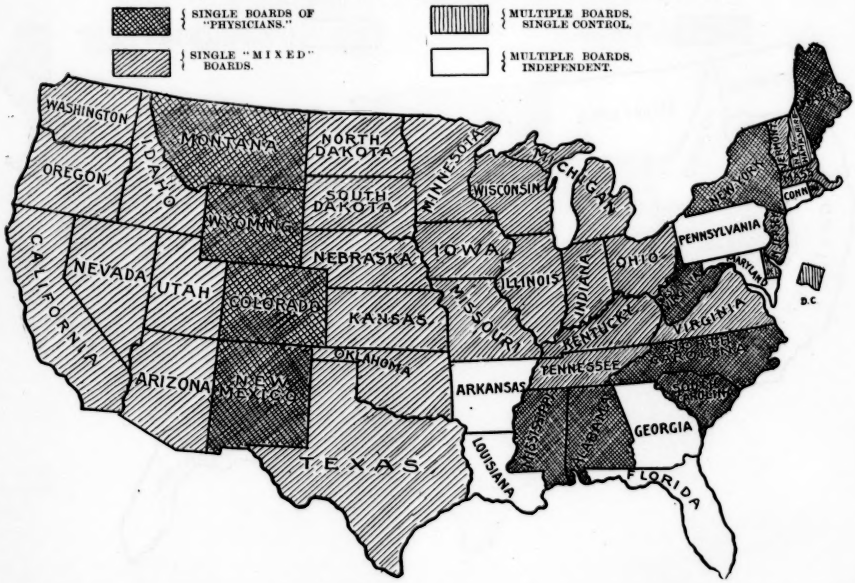
Ten other colleges in their printed announcements have clearly stated their intention to require two years of liberal arts' college work as their minimum standard of preliminary education for the session of 1910-11 and thereafter. These colleges are as follows:

College.	Begins.
University of Colorado, School of Medicine	1910
Indiana University School of Medicine*	1910
State University of Iowa, College of Medicine*	1910
Drake University College of Medicine†	1910
University of Missouri, Department of Medicine†	1910
Dartmouth Medical School	1910
Columbia University College of Physicians and Surgeons	1910
Syracuse University College of Medicine*	1910
University of Pennsylvania, Medical Department*	1910
University of Utah, Medical Department*	1910

* One year required for the session of 1909-10.
† One year has been required since 1906.
‡ The printed announcement for 1909-10 contains no mention of the advance in entrance requirements but an official letter states that two years of collegiate work will be required for admission beginning September, 1910.

The twenty-one following colleges either already require in addition to a four-year high school course one year of work in a college of liberal arts, including courses in physics, chemistry and biology, or have made definite statements in their printed announcements or otherwise, that they will require that standard of preliminary education in and after the year given:

CHART 4.—CHARACTER OF THE STATE LICENSING BOARDS



College.	In Force.
Northwestern University Medical School	1908
Fordham University School of Medicine	1908
Hahnemann Medical College of the Pacific	1910
Denver and Gross College of Medicine	1910
Howard University School of Medicine	1910
Kansas Medical College	1910
Tulane University, Medical Department	1910
St. Louis University, School of Medicine	1910
University Medical College, Kansas City	1910
Washington University Medical Department	1910
Ohio-Miami Medical College, University of Cincinnati	1910
College of Physicians and Surgeons, Cleveland	1910
University of Oregon, Medical Department	1910
University of Texas, Medical Department	1910
University of Virginia, Department of Medicine	1910
West Virginia University, College of Medicine	1910
Marquette University, Medical Department	1910
Wisconsin College of Physicians and Surgeons	1910
Medical School of Maine	1912
Boston University, School of Medicine	1912
University of Vermont, College of Medicine	1912

Twelve other colleges sent official notices to the Council that an increase in requirements would be made. Six of these have since rescinded their action, two have been advised by the Council not to make the requirement at the present time and

four others have not made clear statements of the proposed increase in their printed announcements.

For a time this elevation of standards by the better class of colleges will probably be taken advantage of by commercial, low grade colleges which will continue their lack or non-enforcement of standards in order to profit from the influx of students who are turned away from the good schools. This advantage can only be temporary, however, since, in the first place, medical students and their advisors are rapidly learning that it does not pay to spend four or five years in a college of low requirements and with standards so lax that a large percentage of their graduates fail at state license examinations, and, secondly, because state boards are coming to the support of the better colleges by adopting similar standards of preliminary education and by making their examinations of such character that they cannot be passed by applicants who have not had a training in laboratories and clinics. Such action by a considerable number of state boards will make it impossible for low-grade, inefficient medical schools to continue. Even a rigid enforcement of the four-year high school preliminary

State Examining Board of	No. of Years Required.	Affects Students Matriculating.	Affects all Applicants.
North Dakota	2	1907-08	1911
South Dakota	1	1907-08	1911
Minnesota	2	1908-09	1912
Colorado	1	1908-09	1912
Connecticut	1	1910-11	1914
Kansas	1	1910-11	1914
Indiana	2	1910-11	1914

There are several other states which are contemplating similar increases in their requirements in the near future.

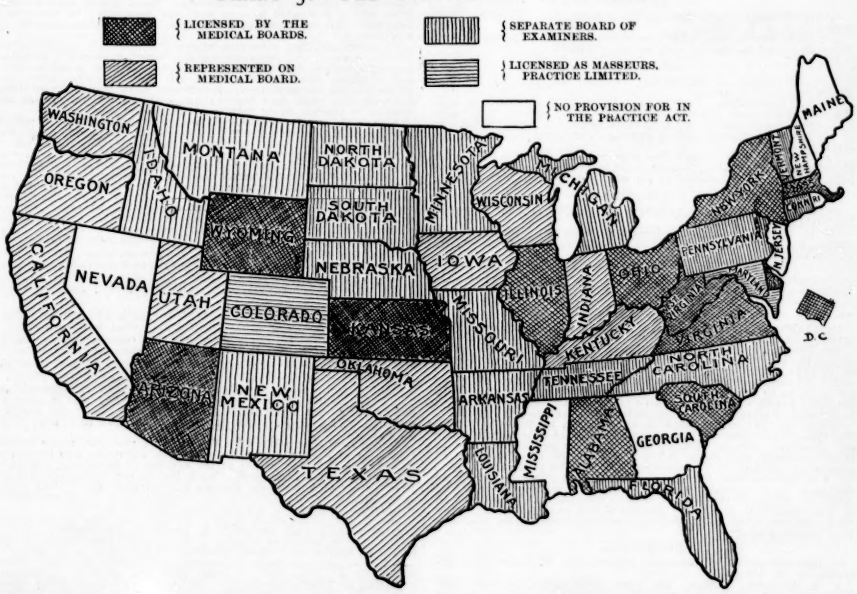
IN CONCLUSION

In conclusion it should be said that although there is still much to be done splendid progress is being made and we can all look forward to the future confident that within a few years medical education and medical licensure in this country will be on a satisfactory basis. Respectfully submitted,

ARTHUR DEAN BEVAN, Chairman.
N. P. COLWELL, Secretary.

On motion of Dr. C. E. Cantrell, Texas, which was seconded by several, the House of Delegates then adjourned until 2 p. m.

CHART 5.—THE OSTEOPATHIC SITUATION



requirement would force several of these commercial schools to the wall.

At least six medical colleges have provided an optional fifth year of hospital work for which the degree of M.D. *cum laude* is granted. These colleges are:

Boston University School of Medicine.
Indiana University School of Medicine.
Rush Medical College.
St. Louis University School of Medicine.
University of Nebraska College of Medicine.
University and Bellevue Hospital Medical College.

The deans of at least 25 medical colleges have stated that they have more internships each year than they can fill. For these schools, therefore, the final requirement of the American Medical Association's "Ideal Standard," namely, "A sixth year as an intern in a hospital," could be easily enforced.

From the fact that 47 medical colleges have adopted higher entrance requirements it is interesting to note that seven state examining boards have also adopted preliminary requirements in advance of a four-year high school education. These are as follows:

Second Meeting — Monday Afternoon, June 6

The House of Delegates convened at 2 p. m., and was called to order by the Third Vice-President, Dr. Alexander Lambert, New York.

The minutes of the previous meeting were read and approved.

Dr. H. Bert Ellis, Chairman, made a supplementary report of the Committee on Credentials.

Dr. John G. Clark, Pennsylvania, Chairman, read the report of the Board of Public Instruction on Medical Subjects.[1]

On motion of Dr. C. S. Bacon, Illinois, it was referred to the Reference Committee on Legislation and Political Action.

The report of the Committee on Organization was called for, but by request deferred until Tuesday afternoon.

Dr. John H. Blackburn, Kentucky, presented his report as Director of Post-Graduate Work.

On motion, the report was referred to the Reference Committee on Medical Education.

1. All committee reports referred to reference committees, will be published in THE JOURNAL, June 18.

Report of Committee on Ophthalmia Neonatorum

Dr. F. Parke Lewis, New York, Chairman, read the report.

To the Members of the House of Delegates of the American Medical Association:

Your committee beg leave to present the following report of legislation enacted together with a summary of the official communications received, indicating the further progress of the movement for the control of ophthalmia neonatorum throughout the United States.

ALABAMA

Ophthalmologist, Samuel L. Ledbetter; Obstetrician, W. H. Sanders; Sanitarian, W. H. Sanders.

Dr. Ledbetter introduced the subject at the meeting of the county medical society and the subject was discussed at some length but no action was taken by the society as a body. He also discussed the matter with the Senior Censor and State Health Officer who was rather opposed to taking it up with the State Medical Association, as he thought that the condition was rarely found in the country districts and small towns and that physicians and midwives in the cities seemed to understand the handling of those conditions fairly well. Besides he was, for other reasons, opposed to introducing any further medical legislation in the legislature just at the present time. Dr. Ledbetter had no suggestions to offer but will continue to agitate the matter occasionally.

ARIZONA

Ophthalmologist, Ancil Martin; Obstetrician, W. I. Simpson; Sanitarian, Gov. J. K. Kibbey.

Dr. Ancil Martin reports that nothing has been accomplished along these lines and no papers read on this subject.

ARKANSAS

Ophthalmologist, J. W. Scales; Obstetrician, Edward Pentley; Sanitarian, J. P. Runyan.

Dr. T. Vinsonhaler: No laws pertaining to the subject of ophthalmia neonatorum were passed by our last assembly, none were introduced, no papers of any kind relating to this subject were read at our last state society meeting and none have been published in our state journal.

Dr. J. W. Scales: There has been nothing except a resolution introduced in our society looking forward to a law to prevent blindness. Last year I attempted to get our Senator to pass such a bill.

CALIFORNIA

Ophthalmologist, H. Bert Ellis; Obstetrician, F. T. Andrews; Sanitarian, M. Regensberger.

Dr. H. B. Ellis: Our state legislature does not meet until next winter, so we have been unable to do anything in regard to laws on the subject.

COLORADO

Ophthalmologist, Edward Jackson; Obstetrician, E. A. Jayne; Sanitarian, W. H. Davis.

No report.

CONNECTICUT

Ophthalmologist, H. S. Miles; Obstetrician, H. J. Ballard; Sanitarian, Joseph H. Townsend.

Dr. Joseph H. Townsend: Nothing has been done in the state during the past year for the prevention of blindness from ophthalmia neonatorum. We had an agitation on this subject a few years ago which resulted in a law being passed by the legislature requiring all cases to be reported by the attending physician or midwife to the local health officer. This, with our medical practice act, which is developing better educated physicians and midwives in the state, is doing all that can be done in this matter, so it seems to me. The Connecticut Educational Commission for the Blind tells me that there are about ten cases of infantile blindness each year which come to their attention and about thirty per cent. of these are due to ophthalmia neonatorum. There ought not to be even this number, but I do not see that any special campaign of education would do any good or is necessary at this time. The medical profession I think, are doing all that can be done to prevent this disease as well as other puerperal infections. The conditions in this state are somewhat different from what they are in congested centers like New York and Chicago.

DELAWARE

Ophthalmologist, J. A. Ellegood; Obstetrician, F. Belleville; Sanitarian, E. W. Cooper.

J. A. Ellegood: Nothing has been accomplished in this state during the past year for the prevention of blindness from ophthalmia neonatorum. Our people are pre-occupied with the anti-tuberculosis crusade, and the medical profession of schools. Shall hope to get some attention paid to the prevention of blindness at an early date.

DISTRICT OF COLUMBIA

Ophthalmologist, Robert Scott Lamb; Obstetrician, J. T. Johnson; Sanitarian, W. C. Woodward.

W. C. Woodward: Careful inquiry is being made into all cases of ophthalmia of infants coming to the attention of the Instructive Visiting Nurses, in order to determine whether they are of gonorrheal origin or not, and in order to determine the outcome of such cases. At the request of the health officer, the Washington Obstetrical and Gynecological Society appointed a committee, consisting of Drs. John F. Moran and W. M. Sprigg, to investigate the status of the preventive treatment of ophthalmia neonatorum, which committee submitted a lengthy report. This report was published in the February issue of the *American Journal of Obstetrics*. It was hoped, when the cooperation of the Washington Obstetrical and Gynecological Society was asked, that in event of the presentation of a report by that body recommending action by the health department, looking toward the prevention of ophthalmia neonatorum, it would be possible to adopt preventive measures. So far, however, the funds at the command of the health officer have been insufficient to permit him to do so.

Washington Obstetrical and Gynecological Society: The committee appointed by the president of the Washington Obstetrical and Gynecological Society to investigate the status of the preventive treatment of ophthalmia neonatorum begs leave to submit the following report: A circular letter was sent with the following questions to a number of maternities and obstetricians in the United States and Europe. 1. What is the routine treatment in your hospital for the prevention of ophthalmia neonatorum? 2. Would you recommend the treatment to be carried out by midwives? 3. Do you think the remedy should be dispensed by the health department?

Forty replies were received and are tabulated below. All employ prophylactic measures, but differ in the choice and strength of the solution, technic, regulation of midwives, and the advisability of the health department dispensing the drugs.

Twenty-three used silver nitrate: one, ½ per cent.; ten, 1 per cent.; two, 1½ per cent.; nine, 2 per cent.; and one the per cent. is not given. Fifteen use argyrol; one, 5 per cent.; one, 6 per cent.; one, 16 per cent.; one 10 to 20 per cent.; four, 20 per cent.; five, 25 per cent.; one, 25 to 50 per cent.; one, 50 per cent.; and in one the per cent. is not mentioned. Five employ sophol; all, 5 per cent. One prefers silver acetate, one per cent; another, hydrarg. bichlor., 1-2000. Protargol is used by four, but supplementary to nitrate of silver in three, hydrarg. bichlor. in one.

The questions 2 and 3 were only submitted to hospitals in the United States, and there were thirty-one replies; twenty-five favored the use of prophylactics by midwives, but several advise that the midwives be taught the proper methods of application, while others recommend that only the substitutes for silver nitrate be employed by them. It is observed that those quoted in this report who oppose the treatment by midwives all use silver nitrate and one of the objectors states that the drug is too powerful and dangerous to be entrusted to the uninitiated.

In reply to question 3, twenty recommend that the prophylactic be dispensed by the health department, while eleven object, one regarding it as another socialistic measure.

It is worthy of note that only 60 per cent. of the institutions quoted use silver nitrate exclusively. These figures were received from widely separated sources and may reasonably be taken as a fair index of the trend of the prophylaxis of ophthalmia in the new-born.

A review of the literature shows that in this country silver nitrate, argyrol, and protargol are the remedies generally employed as prophylactics; while abroad, in addition to these, argonin, collargol, albargin, itrol, sophol, largin, silver acetate, etc., have been employed and recommended. Stephenson says that some of these have already gone into well-merited oblivion, but others are calculated to replace silver nitrate at no distant day.

Argyrol is rapidly growing in favor, is largely used in private practice, and has been introduced into many hospitals. According to Cragin a 25 per cent. solution is equally as effective as one of 2 per cent. silver nitrate in gonorrheal ophthalmia, does not cause pain or produce irritation, and has the important advantage that it can be applied by the nurse, midwife, or layman without danger. He says, however, it is of comparatively little value in staphylococcus and streptococcus infections. In his service at the Sloane Maternity, in 8,000 births, covering a period of seven years, he used as a prophylactic measure five methods of treatment, with a view of selecting a solution that would give the greatest amount of disinfection with the least irritation. The results were as follows:

Series 1.—In 1,000 confinements, 2 per cent. silver nitrate solution; cases of ophthalmia, thirty-four; eyes lost, one; opacities, none.

Series 2.—In 1,000 confinements, 1 per cent. silver nitrate solution; cases of ophthalmia, thirty-four; eyes lost, one; opacities, none.

Series 3.—In 2,000 confinements, 5 per cent. protargol solution; cases of ophthalmia, thirty-four; eyes lost, one; opacities, two.

Series 4.—In 2,000 confinements, 10 per cent. argyrol solution; cases of ophthalmia, thirty-four; eyes lost, one; opacities, two.

Series 5.—In 2,000 confinements, 20 per cent. argyrol solution; cases of ophthalmia, thirty-nine; eyes lost, none; opacities, none.

This series covered a period when there was an epidemic of "pink eye" in the city, and as no gonococci were present in the eyes during the month of its prevalence it was thought by the ophthalmologist who saw the cases in consultation that they were cases of pink eye.

Cragin says that while with the use of 1 per cent. silver nitrate solution and 5 per cent. protargol solution there was less irritation, it looked as if it was gained at the expense of protection, and their use was therefore abandoned. With the 10 per cent. argyrol solution there was a complete absence of irritation, but it was found upon clinical and bacteriological investigation to be of insufficient strength, and therefore did not afford complete immunity.

The 2 per cent. silver nitrate solution and the 20 per cent. argyrol solution were proven to be absolutely bactericidal, and the latter is to be preferred because of its freedom from irritation and it can be applied at frequent intervals, if necessary, with safety.

We have collected from the records of Columbia Hospital, Washington, D. C., from June, 1906, 205 cases of ophthalmia, occurring in 7,236 confinements; 176 cases were reported as cured and twenty-seven were improved at the time of leaving the hospital, so the final result of the latter is not known. There were two cases of blindness, one in the other one eye was lost. There were five cases with opacities of one cornea and one with opacities of both corneas. The earlier records are wanting in microscopical examination, but clinically a large percentage of primary ophthalmia were diagnosed as gonorrheal, with the infections occurring some days after birth generally ascribed to other pathogenic organisms. In 1904, argyrol was introduced, first using a 10 per cent. solution, but as this did not prevent ophthalmia, it was increased to 25 per cent. There had been no cases of blindness or opacities since its introduction.

Professor Zweifel speaks enthusiastically of the acetate of silver in the prevention of ophthalmia neonatorum. In a letter recently received from him, he says that in fourteen years' experience with the drug, blennorrhea occurred in only about 0.02 per cent. of the cases. Irritation is not more frequent or greater than with 1 per cent. of nitrate of silver, as was demonstrated by using the silver nitrate in one eye and the silver acetate in the other. Seitz has obtained a like favorable result in 1,000 births in the Munchen Frauenklinik and Scipiades in the Traufferschen Klinik, Budapest.

Darier and his pupil, Valencon, are warm advocates of protargol. They employ it in 15 to 20 per cent. solution and find it to be less painful and irritating than silver nitrate.

Engleman, using protargol, in the Bonner Frauenklinik, observed 20 per cent. of the infection, usually of mild character, in 1,000 births.

Piotrowsky, in the Hebammenlehranstalt, Krakau, noted 10 per cent. reaction in the treatment of 1,030 cases after the use of a 10 per cent. solution of protargol.

V. Herff, in the Frauenspitale, Basel-Stadt, in 3,009 births, with the use of protargol, had only two late infections but there was 30 per cent. primary reaction.

V. Herff, in endeavoring to find a substitute for silver nitrate possessing equal germicidal power but free from its objectionable properties, first tried protargol. While, as just stated, there were no primary infections, he discarded it because of the large percentage of inflammatory reactions. He next tried argyrol, in 520 births, but not being entirely satisfied, he experimented with sophol. It is a combination of formaldehyd nucleinic acid, and 22 per cent. silver. Sophol is a yellowish-white powder, easily soluble in water. The solution must be prepared with cold water, as a warm solution dissociates the loose combination of the formaldehyd in the preparation. In over 6,000 births, V. Herff says there were one primary and one late infection. The early case of infection was due to inoculation in a known gonorrheal case during labor, in which a prolapse cord was replaced. The late infection occurred on the ninth day in an infant whose mother was suffering with condylomata of the vulva. There was 10 per cent. primary reaction, usually of a mild character.

In 1,436 births in which sophol was used, in the Munchener Frauenklinik, there were one primary infection (0.07 per cent.) one late infection (0.07 per cent.) and three cases of inflammatory reaction of mild intensity.

Beginning in January, 1909, Menge has employed sophol in the Universitats-Frauenklinik, Heidelberg. The sophol solution has been instilled into the left eye of the infant, and a 1 per cent. silver nitrate solution into the right eye. He finds that irritation occurs less frequently with sophol. Two cases of true blennorrhea, both late infections, have occurred this year, both in the second week. The left eye was infected in one infant and the right eye in the other.

Callatia reports the use of sophol as a prophylactic in 280 births in the Landesspitales, Laibach. There was no early infection, notwithstanding that two of the mothers were suffering with gonorrheal vaginitis at the time of delivery.

Bock and Kraus have also used sophol in inflammatory diseases of the eyes with excellent results. Bock finds it to be particularly effective in recent cases; but in those of long standing, while it rapidly diminishes the discharge, in many instances it is necessary to resort to the use of silver nitrate to effect a cure.

The committee being much impressed with the excellent results obtained with sophol by V. Herff and others was anxious to give it a trial. Through the courtesy of Dr. Cabell, of the visiting staff of Columbus Hospital, and Dr. Lawson, of the visiting staff of Freedman's Hospital, the remedy was used in these institutions during the past summer. A 5 per cent. solution was employed, and it was freshly prepared every two weeks. Altogether the solution was instilled into the eyes of 153 infants, ninety-three in Columbia Hospital, and sixty in Freedman's Hospital. Of those treated at Columbia Hospital, there were thirteen with primary irritation, lasting from a few hours to several days, all yielding to boric acid irrigation. There was no primary infection, although neither had been under treatment in the hospital for more than a week prior to the delivery for a severe case of gonorrheal vulvovaginitis. The infant's eyes were wide open immediately after birth and had a dull glazed appearance, with clouded cornea. Prompt instillation was made and no infection followed.

There were eight late infections, occurring from the third to the fourteenth day after birth. Six yielded to the sophol and boric acid applications in from a few hours to eight days. One case in which the lanceolatus was found left the hospital on the eleventh day of treatment, improved; and another in which the microscopical examination was negative left also on the eleventh day of treatment improved.

Dr. Lawson reports that sixty infants received the 5 per cent. sophol solution at birth in Freedman's Hospital, and the results were very satisfactory. In but one case was there anything more than a slight inflammatory reaction observed. One baby developed a purulent conjunctivitis, which was slight and cleared up within five days, during which time the sophol solution was instilled three times daily. The mother in this case had a marked vaginal discharge at the time of confinement.

Our personal experience with the use of sophol is in accord with that of other investigators and we regard it as a safe and effective measure for the prevention of ophthalmia neonatorum.

In conclusion, the committee recommends: 1. That immediately following the birth of the infant the eyes should be carefully wiped with sterile gauze, dipped in a saturated solution of boric acid and then a 5 per cent. sophol, 25 to 50 per cent. argyrol, or 1 to 20 per cent. protargol solution used as a prophylactic against ophthalmia neonatorum.

Since late infections comprise one-fourth of the cases of ophthalmia neonatorum and may be due to the faulty application of the prophylactic, or latent gonorrhea, but is more often the result of contamination from the vaginal secretion because of lack of vigilance, or ignorance on the part of attendant or mother; therefore the nurse should be instructed to thoroughly scrub her hands with soap and water and disinfect them before washing the infant's eyes, dressing the navel, and bathing the mother. The mother's hands should be cleansed several times daily, particular attention being given to the nails, and she should be repeatedly warned as to the danger of the vitalia. By careful attention to these precautions the morbidity from ophthalmia can be greatly reduced it not entirely controlled.

2. That the solution be dispensed in amber-colored sterile tubes sealed with paraffin for use by midwives; a small quantity of sterile gauze be placed in the prophylactic package.

3. That suitable instructions as to technic be printed on the birth certificates.

4. That legislation be enacted for the control of midwives.

5. That midwives be compelled to make report of births within 24 hours following delivery.

6. That the health department furnish the drugs gratuitously to indigent cases.

7. That in cases of ophthalmia occurring in patients under the charge of midwives they be required to summon a physician immediately or notify the health department promptly.

Finally what is need to control this scourge is a hearty cooperation of the medical profession with the health authorities.

FLORIDA

Ophthalmologist, Columbus Drew; Obstetrician, E. N. Lieli; Sanitarian, Joseph Y. Porter.

Dr. C. Drew: At the annual meeting of the Florida State Medical Association, held April 6, resolutions were adopted endorsing the work of the American Medical Association in its efforts to prevent blindness from ophthalmia neonatorum, requesting the state board of health to cooperate with the American Medical Association in this work, requesting the local societies also to cooperate, and appointing a committee of three (Dr. C. Drew, Jacksonville, Dr. E. N. Lieli, Jacksonville, Dr. Dewitt Webb, St. Augustine) to facilitate the work during the year and to report at the annual meeting of the state association in 1911.

Joseph Y. Porter: The state board of health of Florida has not as yet undertaken any work in this direction. The importance of the subject as a public health problem is recognized, however, and it is not unlikely that an effort will be made to distribute literature to midwives and advice to practitioners upon early medication of the eyes of the new-born to prevent that frightful menace to sight—ophthalmia neonatorum—especially when of that cnaracter which may be virulently infectious.

GEORGIA

Ophthalmologist, H. H. Martin; Obstetrician, F. C. Hodgson; Sanitarian, H. F. Harris.

H. H. Martin proposed a law which provides for the compulsory use of a prophylactic by midwives and others and an addition to the birth certificate stating whether or not a prophylactic had been used, the character of the prophylactic being left to the physician. The legislature was asked to secure the enactment of such a law.

IDAHO

Ophthalmologist, Charles R. Hugel.
No report.

ILLINOIS

Ophthalmologist, W. H. Wilder; Obstetrician, C. S. Bacon; Sanitarian, Geo. W. Webster.

Report of Illinois Commission to Inquire into the Condition of the Blind: At a meeting of the State Board of Charities, held July 16, last, a commission was appointed to inquire into the condition of the blind in Illinois, with a view to formulating plans for the employment of the adult blind and for improving the efficiency of the state care in other particulars. The following were appointed: Clara P. Bourland, of Peoria, chairman, and Dr. John T. McAnally, of Carbondale, representing the State Board of Charities; Geo. W. Jones, superintendent Illinois State School for the Blind, Jacksonville; C. D. Babb, of Homer, trustee of the State School at Jacksonville; Joseph F. Otis and E. J. Nolan, of Chicago, trustees of the Illinois Industrial Home for the Blind at Chicago; Mr. Nolan, representing the blind people in Illinois; Mrs. Alice E. Bates, representing the Chicago Woman's Club; Dr. Wm. M. Wilder, of Chicago, representing the Illinois Charitable Eye and Ear Infirmary, at Chicago; Chester M. Dawes, representing the Chicago Board of Education, and Dr. Elmer E. Hagler, of Springfield, representing the Illinois State Medical Society.

The first meeting of the commission was held in Jacksonville, September 17, at the school for the blind, Mrs. Bourland presiding; Dr. E. E. Hagler elected secretary. Professor Wilder addressed the commission, and, from statistics presented, demonstrated that from 40 to 45 per cent. of all cases of blindness were absolutely preventable; and notwithstanding that fact, blindness is increasing in all civilized countries. The largest amount of blindness, he said, comes from ophthalmia neonatorum, or blindness of the new-born. This disease, which is easily preventable, causes from 25 to 30 per cent. of all cases of blindness. Dr. Wilder also called attention to the prevalence of trachoma in the southern part of the state. Following this lecture Dr. Wilder held an informal clinic, exhibiting chiefly children in the school who were suffering from the results of ophthalmia neonatorum and trachoma.

A sub-committee of three was appointed, to report at the next meeting, consisting of Dr. Wilder, who is to report suggestions for the prevention of blindness and to recommend the enactment of needed laws; Mr. Jones, to report of the needs of his school and to recommend more efficient legislation; and Mr. Nolan, to make recommendations and suggest such laws as will improve the conditions surrounding the employment of the adult blind.

The second meeting was held in Chicago at the Industrial Home for the Blind, Saturday, December 5.

The sub-committee, consisting of Messrs. Nolan, Jones, and Wilder, made their reports. Dr. Wilder, in his report, stated, that as the state has assumed the responsibility of custodian of the blind poor and may, because of unfavorable circumstances, have more of such afflicted persons thrown on its charge, it should endeavor to study the causes of blindness and if possible seek out means for its prevention. To this end, it is important to collect statistics as to the prevalence and degree of blindness, and so far as possible the exact cause of it in each case.

Dr. Wilder, Dr. McAnally, and Dr. Babb were made a committee to prepare specific recommendations on the prevention of ophthalmia neonatorum. Their report follows:

It is well known that ophthalmia neonatorum is the cause of a large proportion of blindness in this as well as other countries, and that in the specific schools for the blind as many as 25 per cent. to 35 per cent are there because of this disease. It is also a well established fact that by proper and comparatively simple means it may be prevented in a vast majority of cases.

The state should enact a law having for its object the adoption of measures for the prevention of this disease at least in the practice of midwives and in public institutions where obstetric cases are treated.

The state board of health seems to be the proper authority for establishing the necessary rules, regulations and ordinances and enforcing their observance, and for publishing and distributing appropriate information and instruction on the subject.

It is probably best that the specific method to be used for the prevention of ophthalmia neonatorum should not be left to the intelligence and judgment of the state board of health, believing that it will act in accordance with the most advanced existing knowledge. The following form of law is suggested in accordance with the ideas suggested above.

"An act to prevent inflammation of the eyes of the new-born babe, or so-called ophthalmia neonatorum.

Section 1.—The board of health of the state of Illinois is hereby vested with power and authority to publish and distribute such information and instruction, to furnish such remedies and to make such rules, regulations and ordinances as it may deem expedient to prevent the development of inflammation of the eyes of the new-

born babe, so-called ophthalmia neonatorum, in public hospitals or institutions in which midwifery is practiced, either wholly or in part, and in connection with the practice of midwives.

Section 2.—Said board of health is authorized to enforce its rules, regulations, and ordinances on this subject at the expense of the state.

Section 3.—Any person violating any rule, regulation or ordinance of said board of health regarding the prevention of ophthalmia neonatorum shall be guilty of a misdemeanor, and shall be punishable by a fine not to exceed $100, or imprisonment not to exceed six months, or both.

The above suggestions are in substance embodied in the report of the Committee of the American Academy of Ophthalmology and Oto-Laryngology cooperating with the committee of the American Medical Association on legislative measures to prevent ophthalmia neonatorum, presented to the house of delegates of the American Medical Association, June, 1908.

The central feature of giving the state board of health direction of the whole matter and power to act is, in our judgment, a good one. A law similar in purposes to the one proposed would be more effective than the one now on the statute books (Chap. 38, Sec. 510, Revised Statutes of Illinois) relating to the same object, which by the new enactment could be repealed.

According to the present law, which, so far as I am aware, is not enforced, the nurse or midwife who notices a discharge from the eyes of an infant within two weeks after its birth must report the same to a health officer of the town, or some legally qualified practitioner, within six hours of the discovery, under penalty for failure to do so. The proposed new law contemplates that the midwife shall be instructed by the state board of health in the method of prophylaxis, which she will be compelled to use in every case, and in addition that she will report any cases of the disease that may arise in her practice, to the proper authorities.

INDIANA

Ophthalmologist, Albert E. Bulson; Obstetrician, T. B. Eastman; Sanitarian, J. N. Hurty.

The legislature has not been in session this year, so nothing in a legal way has been accomplished. The subject is being given wide publicity, however. The state board of health has been very progressive in its efforts to further the cause of preventive medicine, including the prevention of ophthalmia neonatorum, although they are not, at the present time distributing silver of nitrate solution. The Tippecanoe county medical society has taken up the matter and are sending out the following circular letter to the various medical societies in Indiana. The next birth certificates will have upon them the recommendations of the committee of the American Medical Association.

Circular sent out by the Medical Society. Because institutions for the instruction of the blind (which keep accurate data, concerning the cause of the blindness of their pupils) report about thirty-five per cent. of their pupils to be blind as the result of ophthalmia neonatorum, the Tippecanoe County Medical Society, by its committee on ophthalmia neonatorum, asks the cooperation of the profession, by county and district society action and otherwise, in a propaganda looking to the abolition of the disease in this state.

We recommend that the widest publicity be given the Credé method, which consists in dropping into each eye of the new-born babe, by the physician, one drop of a 1 per cent. solution of silver nitrate, as soon as possible after the birth of the baby's head and the cleansing thereof.

We recommend cooperation of all societies to secure of the next legislature the passage of a law as will best stamp out this preventable disease, and save eyes otherwise doomed to destruction.

We recommend that each county and district society appoint a committee on ophthalmia neonatorum in order that it may in its own county use its influence with the profession and public in eradicating this disease.

We recommend that each county and district society take action, endorsing this propaganda, and that such action be reported to the undersigned committee not later than May 15, that the committee of the American Medical Association on ophthalmia neonatorum may be informed as to the progress made in this state as to the above actions. Said committee will report its progress to the next meeting of the American Medical Association, the first week in June.

Fraternally submitted,

GEO. E. KEIPER, Chairman;
EARL VAN REED,
President, Tippecanoe Co. Society;
W. N. RESER, Secretary;
PROF. SEVERANCE BURRAGE.

.....

The ..... County Medical Society hereby endorses the propaganda of the Tippecanoe County Medical Society, looking to the abolition of ophthalmia neonatorum in Indiana.

President.....
Secretary.....

Date.....

IOWA

Ophthalmologist, E. R. Lewis; Obstetrician, W. B. LaForce; Sanitarian, F. W. Powers.

E. R. Lewis, Symposium: Ophthalmia Neonatorum in Iowa, with a consideration of State Prophylaxis: Last year the Iowa State Medical Society, in common with most other state medical societies, appointed a committee to take up the matter of the prevention of ophthalmia neonatorum in the state. It has seemed advisable to this committee to recommend taking steps to secure accurate and complete data in regard to this disease in Iowa, for the obvious reason that up to the present we have had no means of ascertaining anything definite concerning it. If state prophylaxis is adopted and the taxpayer pays the bills, even though they be small ones, he should also be provided with a means of comparing results and of knowing whether or not the disease is being stamped out. Should future agitation bring into question the advisability of giving up state prophylaxis of this disease the data concerning the disease would at once furnish accurate proof of the failure or success of the preventive measures. The means of securing this data is already in our hands, in the birth certificate. It is necessary only to add a few lines to the birth certificate already in use. The requiring of attendants to record such data on the birth certificate would not only be the means of assembling statistics concerning the disease, it would also be a very practical means of enforcing attention on the part of the attendants to prophylactic measures. The fear of consequences, should failure to use prophylaxis be followed by the disease, would do much to prevent neglect of proper care of the eyes at birth.

Revocation of license to practice should be the penalty for repeated neglect to use prophylaxis or for false entries on the birth certificate.

Very effective work has been accomplished in the state of Iowa.

KANSAS

Ophthalmologist, Robert L. Alkire; Obstetrician, F. Harper; Sanitarian, L. A. Godeon.

No report.

KENTUCKY

Ophthalmologist, F. Manning Brown; Obstetrician, L. S. McMurtry; Sanitarian, Jos. M. Mathews.

No. report.

LOUISIANA

Ophthalmologist, H. Dickson Bruns; Obstetrician, S. M. D. Clark; Sanitarian, C. H. Irion.

Symposium on ophthalmia neonatorum was read by Dr. E. A. Robin, Dr. N. Feingold, Dr. Robert Salter and Dr. Dickson, before the County Medical Association. The papers were amplified and read at the meeting of the Louisiana State Medical Society and were to be published among the transactions of the society in the New Orleans *Medical and Surgical Journal*, after which they will be acted upon by the state and city boards of health.

MAINE

Ophthalmologist, E. E. Holt; Obstetrician, Fred W. Mann; Sanitarian, A. G. Young.

No new action has been taken during the past year for the prevention of blindness. However, the following act appears upon the statute books: Chapter 18. Prevention of Blindness. Section 90. If one or both eyes of an infant become reddened or inflamed at any time within four weeks after birth, the midwife, nurse or person having charge of said infant shall report the condition of the eyes at once to some legally qualified practitioner of medicine of the city, town or district in which the parents of the infant reside. Any failure to comply with the provisions of this section shall be punishable by a fine of not to exceed one hundred dollars, or imprisonment not to exceed six months.

MARYLAND

Ophthalmologist, Hiram Wood, M.D.; Obstetrician, W. A. B. Sellman; Sanitarian, Wm. H. Welsh.

Nothing of importance has been accomplished. Several public addresses have been delivered by Dr. Hiram Woods on the general subject of prevention of blindness and especially ophthalmia neonatorum. He advised changes providing for educating midwives and licensing them. 2. Better birth registration. 3. Systematic instruction, by the society for prevention of blindness of present midwives who are exempt under the new law. 4. Compulsory prophylaxis for Baltimore later.

An excellent midwifery bill has been adopted by the legislature of the state of Maryland. It provides for the issuing of a license without examination to those actually practicing on the first of July, 1910, before the passage of the law, for all others an examination is required before a license shall be issued. It is required that the applicant shall, at least, know how to read and write and make out a birth certificate correctly, as required by law. The state board of health has charge of the details of the examination. It is also required that the candidate shall have attended at least five cases of child birth and is competent to attend ordinary cases of labor. The former law providing a penalty for the failure to report the existence of the symptoms of ophthalmia neonatorum remains unchanged. It is the first step toward the elimination of the midwife evil.

MASSACHUSETTS

Ophthalmologist, Myles Standish; Obstetrician, D. H. Craig; Sanitarian, Henry P. Walcot.

A most valuable paper by Dr. Mark Richardson, entitled Ophthalmia Neonatorum; Facts Concerning the Disease and Its Prevention as Affecting the State of Massachusetts was read before the associated boards of health of Massachusetts and later published in the *American Journal of Public Hygiene*. The effect of these official actions are best studied in the following table kindly furnished by Dr. S. H. Durgin, chairman of the Boston board of health.

REPORTED CASES OF OPHTHALMIA NEONATORUM IN BOSTON

Year	Cases reported	Treated in hospitals	Brought from other cities
1905 (from Sept. 5)	16	..	..
1906	34	13	1
1907	17	7	..
1908	39	31	2
1909	171	115	30

All cases of ophthalmia neonatorum reported and not already under treatment in hospitals are seen by a medical inspector and if proper care cannot be secured in the home the case is sent to the hospital.

The records of the state board of health show no cases reported in 1905, 1906, or 1907; 20 cases in 1908 and 100 cases in 1909. There can be no doubt that the large increase in reported cases in 1909 was due to the action of the state board of health in putting the disease on the notifiable list, in sending to each practitioner a communication calling his attention to the law and in giving him detailed information concerning treatment. It is, of course, too early to estimate the effect upon the aggregate blindness of the state. The state board of health of Massachusetts has under consideration, the free distribution of the prophylactic.

The conclusions at which Dr. Richardson arrives are:

1. The cause of ophthalmia neonatorum and the manner of its spread are known.

2. Reliable methods of preventing the disease are known.

3. The law in Massachusetts is such that the disease, if promptly reported may still be deprived of many of its destructive effects through energetic cooperation of local and state health authorities.

4. Improvement in conditions is, undoubtedly, going on, but it is slow. Rapid change for the better can be obtained only through a sharp appeal to the self-interest of the practitioner. There can be little doubt that vigorous enforcement of the law concerning

notification, with or without resulting convictions, would, through the publicity alone, impress the importance of this matter upon the profession to an extent possible in no other way.

5. The practice of midwives in Massachusetts is extensive and without supervision. They should be regulated or suppressed.

In July of 1909 an important circular was issued by the Board of health in which attention was called to the revised laws. The following paragraphs are italicized: "Should one or both eyes of an infant become inflamed, swollen and red, and show an unnatural discharge at any time within two weeks after birth, it shall be the duty of the nurse, relative or other attendant having charge of such infant to report in writing within six hours thereafter, to the board of health of a city or town in which the parents of the infant reside, the fact that such inflammation, swelling and redness of the eyes and unnatural discharge exist. On receipt of such report, or of notice of the same symptoms given by a physician as provided by the following section, the board of health shall take such immediate action as it may deem necessary in order that blindness may be prevented. Whoever violates the provisions of this section shall be punishable by a fine of not more than one hundred dollars.

"If one or both eyes of an infant whom or whose mother he is called to visit become inflamed, swollen and red, and show an unnatural discharge within two weeks after the birth of such infant, he shall immediately give notice thereof in writing over his own signature to the selectmen or board of health of the town; and if he refuses or neglects to give such notice he shall forfeit not less than fifty nor more than two hundred dollars for each offense."

It also includes suggestions for the prevention and treatment of ophthalmia neonatorum as prepared by the Massachusetts Medical Society. This is of such importance as to be given in full as follows:

"Ophthalmia neonatorum is an inflammation of the eyes of the new-born, which is usually due to infection by a specific organism. If not properly treated, blindness is a very common result. A large proportion of the blind babies owe their loss of sight to this cause. Blindness rarely occurs if the disease is properly treated from the beginning. The possibility of any baby becoming infected at the time of confinement should be constantly borne in mind, and it is desirable to carry out a routine treatment in every case.

PREVENTIVE TREATMENT

1. After washing the lids and adjacent tissues, drop into the eye of every new-born babe a few drops of a 25 per cent. solution of argyrol or a 5 per cent. solution of protargol.

2. It is not necessary to wash the solution from the eyes, as it is practically non-irritating.

3. Care should be taken that the end of the dropper does not touch the eye-ball, and that the finger-nails do not come in contact with the cornea.

4. The solution of argyrol or protargol should be freshly prepared for each confinement case.

SUGGESTIONS

Before leaving a confinement case, the physician should instruct the nurse, of, if a nurse is not employed, the most intelligent member of the family, to notify the doctor at once if the eyes become inflammed and discharge matter. He should also call attention to section 49 of chapter 75 of the Revised Massachusetts Laws.

2. When possible these cases should be placed in the hands of an oculist. It is extremely desirable that all cases met with among the poorer classes be transferred at once to the Massachusetts Eye and Ear Infirmary, or some similar institution in the city where they occur. This is advisable, not only for the good of the child, but for the safety of other members of the family as well. For the fact must not be lost sight of that the disease is very contagious, and that, if the eyes of an adult or older child become infected, it means an inflammation of even greater seriousness than when present in the eye of the new-born babe.

3. If circumstances make it necessary that the child be treated at home, the serious and infectious nature of the disease should be impressed upon the family. The baby should be separated from the other children. Caution should be given to the one having the care of the child that their hands should be frequently washed and not brought in contact with their own eyes. All bits of cotton used about the eyes should be carefully separated and thoroughly boiled.

4. The following treatment should be begun at once. Wash the eyes every forty minutes with a 2 per cent. boric acid solution. This requires the services of two intelligent persons, preferably nurses, one for day and the other for night duty. They should be carefully instructed that in cleansing the eyes the inner angle and edges of the lids, which are usually tightly shut, should be freed from discharge by means of a bit of absorbent cotton wet with the solution. It the lids are then separated most of the retained secretion will escape and what remains can easily be dislodged by taking another bit of cotton, thoroughly saturated with the solution, holding it an inch or two above the eyes, and then by pressure causing a stream to flow gently into the conjunctival sac. The lids should be dried after each washing, and four or five times a day, it is well to apply a little simple ointment to their edges. Nurses or attendants doing this work should have their finger-nails trimmed as short as possible, for if a slight abrasion of the cornea be made in the process of washing the eyes or separating the lids, it will be quickly followed by infection and ulceration. The danger of the baby scratching the cornea with its finger-nails should also be prevented by confining the hands.

Next in importance to cleanliness is the use of some silver salt. A 25 per cent. solution of argyrol or a 5 per cent. solution of protargol may be used freely every four hours, the eyes to be first freed from secretion. In applying the remedy, the child should be placed flat on the back, and the head so held that the solution will not quickly escape from the eyes. The lids being separated with the thumb and finger, a few drops should be instilled with an eye-dropper. Careful instructions should be given, however, that the end of the dropper be not brought in contact with the cornea, or the instillation made with too great force. This treatment, frequently cleansing the eyes and the use of argyrol, or protargol, if it can be thoroughly and systematically carried out, will, with rare exceptions, ensure a perfect recovery.

MICHIGAN

Opthalmologist, W. R. Parker; Obstetrician, J. H. Carstens; Sanitarian, Angus McLean.

Dr. J. H. Carstens: I can find no papers on the subject of ophthalmia neonatorum. I personally, have had a number of talks with our health officer. The trouble with enforcing the law is the ignorance of midwives and we now have a proposition before the aldermen to put them under the control of the health board. We will gradually get this under control.

Dr. Walter R. Parker: For various reasons it has not seemed advisable to make a frontal attack just at present. I have not missed an opportunity to bring the matter up. Have a talk in Ann Arbor to-morrow night before the Young Men's Christian Association. I believe a little more educational work is necessary before the professional men will take it up in earnest. I think, however, that next year the whole matter can be brought up before the society in a way that would be more effective and produce better results than to attempt anything at the present time.

MINNESOTA

Ophthalmologist, Frank C. Todd; Obstetrician, A. B. Cates.

An important symposium was presented at the forty-first annual meeting of the Minnesota Medical Association, held at Winona, October 14 and 15, 1909. A comprehensive and valuable paper was read by Frank C. Todd, entitled Unnecessary Blindness, and one on Etiology and Prophylaxis of Ophthalmia Neonatorum, by Jennings C. Litzenburg, of University of Minnesota. Resolutions to accomplish the ends sought were passed by the association and at the proper time an effort will be made to obtain legislation upon the subject.

MONTANA

Ophthalmologist, John A. Donovan; Obstetrician, D. Campbell; Sanitarian, Wm. Tracy.

Dr. T. D. Tuttle: Year before last the question occupied the greater portion of the time of the public health meeting. Resolutions were adopted relative to the nature of laws on this subject and were sent to the legislature of our state. A bill was introduced in the hope of securing some legislation on this line, but same was killed.

Dr. Donald Campbell: Nothing has been done in our state the past year. Our state society meets in May and we hope to get some resolutions passed, then, if nothing else.

MISSISSIPPI

Ophthalmologist, Jas. B. Bullitt; Obstetrician, J. C. Blackstrom; Sanitarian, B. F. Ward.

Dr. James B. Bullitt: The past year has shown some progress in Mississippi in this fight, but not nearly so much as might be desired. No papers have been read before any large gatherings but there have been a number of papers and a good many talks made before the various county medical societies. The committee on legislation of the State Medical Association, in cooperation with the state board of health, has made a strong effort to pass a bill this winter, looking toward the accurate collection of vital statistics, including ophthalmia. The bill failed to pass but some progress was made toward educating some of the legislature along this line, and we hope will bring some results at the next meeting.

MISSOURI

Ophthalmologist, P. I. Leonard; Obstetrician, T. J. Beattie; Sanitarian, E. S. Ballard.

A paper entitled The Prevention of Ophthalmia Neonatorum was read in May, 1909, and published in the August number of the *Journal of the Missouri State Medical Association*. The following law is now upon the Missouri statute, but is not enforced.

Section 7530.—Midwife to report case of sore eyes to physician. Should one or both of the lids of either or of both eyes of an infant become red or swollen, or should there be any discharge from either or from both eyes, at any time within three weeks after its birth, it shall be the duty of the midwife, nurse or other person having charge of said infant at once, unless for good cause known, to report the condition of said eyes to a legally qualified practitioner of medicine (Laws, 1895, p. 153).

Section 7531.—Health officer to furnish copy of law to midwife—secretary of state to print same. Every health officer shall furnish a copy of this article to each and every person who is known to him to act as midwife or nurse in the city or town for which such health officer is appointed, and the secretary of state shall cause a sufficient number of copies of this article to be printed, and shall supply the same to such health officers on application (Laws, 1895).

Section 7532.—Violation of the law a misdemeanor-punishment. Any failure to comply with the provisions of this article shall be a misdemeanor, and shall be punishable by a fine of not less than ten or not more than one hundred dollars, or by imprisonment not to exceed six months, or by both such fine and imprisonment (Laws, 1895, p. 153).

Missouri now has an act to provide for the immediate registration of all births and deaths under the supervision of the state board of health, and is in a position to have this law enforced.

NEBRASKA

Ophthalmologist, Harold Gifford; Obstetrician, W. C. Henry; Sanitarian, W. T. Johnson.

Dr. H. Gifford: About seventeen years ago I had a bill introduced into the Nebraska legislature placing ophthalmia neonatorum on the contagious disease list, and making it obligatory for midwives to report all cases to the nearest board of health, which was then to be instructed to advise parents of the danger of the disease and of the necessity of medical treatment. This bill, although recommended unanimously by the state society, was killed in the committee of the state legislature. Since then nothing has been done, although I propose to bring up a similar bill at the next meeting of the state legislature.

NEVADA

Obstetrician, S. K. Morrison.

Dr. S. K. Morrison writes: While the state association or its county branches have done nothing in an official way toward the enactment of laws, nor any other actions as a body, I personally have communicated with every doctor practicing in the state of Nevada, I could reach, asking them the number of cases they have had of ophthalmia neonatorum, the routine practice concerning the care of the eyes of the new-born and results of cases they have had, and I find that there were but five cases reported to me in the whole state of Nevada for the last twenty years, and only one of these resulted in complete blindness. The majority of the men are using an instillation of silver nitrate solution immediately after birth, the balance are using boric acid and silver nitrate wherever there is any suspicion that the mother is infected.

NEW HAMPSHIRE

Ophthalmologist, C. B. Hammond; Obstetrician, W. B. Garland; Sanitarian, Irving A. Watson.

Dr. Charles Hammond: During the last session of the New Hampshire legislature, there was a bill regulating the treatment of the eyes of the new-born, presented to it asking for its enactment, but it was turned down. There never has been a law on this subject, and no papers have been read in any organization of any kind relative to it. We are to try organization another year and hope for better results. There have been so few cases of ophthalmia neonatorum throughout the state that the physicians are a little apathetic regarding it. The only suggestion I have to make is to "Stick to the work if it takes years" to do it. We are on the right road, I am convinced.

NEW JERSEY

Ophthalmologist, C. J. Kipp; Obstetrician, Charles L. Ill; Sanitarian, B. S. Keator.

At the annual meeting of the Medical Society of New Jersey, held at Cape May, N. J., June 23, 1909, Dr. Charles J. Kipp introduced the following resolution:

Resolved, That this society appoint a committee which shall put itself in communication with the state board of health and with each component society to adopt a method to put a stop to ophthalmia neonatorum.

That it be recommended that the state shall make a sufficient appropriation to the state board of health to put the necessary enactments into force and to prosecute their violation.

That the new law now existing with regard to reporting cases of this disease, be so amended as to make it enforceable.

That ophthalmia neonatorum be placed on the list of communicable diseases by the state board of health and by all local boards of health.

That a law be passed compelling midwives to use such prophylactics as may be recommended by the state board of health.

A motion was made, seconded and carried that the resolution be referred to a committee to put the matter in shape for action by the society.

At the same meeting a paper on the prevention and treatment of ophthalmia neonatorum was read by Dr. T. R. Paganelli, of Hoboken, N. J.

With a view of bringing this subject again to the attention of the members of this society, the Committee on Prize Essays has selected as the subject of the essay, "The Causation, Prevention and Treatment of Ophthalmia Neonatorum, with Special Reference to Methods of Prevention Applicable in Private Practice." To the best essay will be awarded the prize of one hundred dollars, to the second a gold medal, of the value of fifty dollars.

The committee on ophthalmia neonatorum, with the aid of the attorney general of the state, has prepared an amendment to the law of 1895, an act for the prevention of blindness in the state of New Jersey, of which a copy is enclosed. We have no reason to doubt that the amendment will be passed. As soon as this is done the state board of health will distribute to all known practitioners of medicine and midwives, a copy of the law as amended, together with circular containing directions as to approved methods of prevention and treatment of ophthalmia.

A supplement to an act entitled "An act to regulate the practice of midwifery in the state of New Jersey" has been introduced in the legislature and will probably be passed.

In the hospitals with maternity wards where Credé's method is used, no cases of ophthalmia developed in the children born there during the year.

In the Newark Charitable Eye and Ear Infirmary, the average percentage of cases of ophthalmia neonatorum during the twenty-four years was 0.8 per cent. of all eye diseases. During the last four years it has been a little above 0.35 per cent. Most of the cases were in children born with the assistance of midwives. We rarely see a case in general practice.

For the substance of the law of 1895 see the report of the committee for last year.

NEW YORK

Ophthalmologist, Charles S. Bull; Obstetrician, H. J. Bolt; Sanitarian, Eugene H. Porter.

In his report to the Governor, Dr. Eugene H. Porter states: This (ophthalmia neonatorum) has been placed in the list of diseases of which Health Officers are required to make report; forty cases have been reported, no report on it from New York City being included.

This is the first entire year of work in this direction. It has been taken up for the purpose of saving new-born children from a disease which is almost certain to result in blindness. The disease is not common; it is infrequent enough to occur but few times or possibly not at all in the experience of the average physician. A suitable prophylactic applied to the eyes at birth will prevent its development. Securing its report is only a step towards effecting its control. The chief work on it this year by the department has been to induce physicians and midwives to habitually and uniformly use preventive measures on the eyes of every new-born child with which they have to do. Pledge cards to do this have during the year been sent to every practicing physician in the state outside of New York city, and every midwife whose name could be secured. Return postals to this end have been sent to 6,353 physicians and to 157 midwives; 3,702 of the former and 56 of the latter have thus far signed this pledge. This work has received general commendation from the medical profession in whatever comment is made in connection with the return of the pledge cards.

There has also been placed on the certificates of birth a question as to whether ophthalmia prophylaxis has been used in the eyes of the child whose birth is reported. The purpose of this is to keep constantly before the obstetrician this measure. Physicians will not misinterpret this as an official demand or as an interference with individual judgment as to treatment, when they reflect on the importance of the uniform and routine use of the procedure which will prevent a grave disease. During the year a prophylactic outfit consisting of a solution of nitrate of silver with apparatus and directions for its use, has been prepared and a large number sent to health officers for gratuitous distribution to every obstetrician.

NORTH CAROLINA

Ophthalmologist, H. H. Briggs; Obstetrician, J. F. Highsmith; Sanitarian, George G. Thomas.

Dr. R. H. Lewis reports that nothing has been done during the last legislature. Dr. Rankin, the new secretary of the board has promised his support during the next legislature. He is in favor of trying the New York plan of getting the physicians to sign a pledge to use Credé's method in all cases.

NORTH DAKOTA

Ophthalmologist, Henry Beaudoux; Obstetrician, F. J. Campbell; Sanitarian, J. Grassick.

J. Grassick reports: No laws have been passed during the year of 1909 bearing on ophthalmia neonatorum. We have been doing education work which should count for something.

OHIO

Ophthalmologist, Mark D. Stevenson; Obstetrician, C. L. Bonnifield; Sanitarian, C. O. Probst.

Early in the present year, an extensive campaign for the education of the people for the propaganda in the interest of prevention of blindness was carried on under the direction of the Ohio State Commission for the Blind. Mr. M. C. C. F. Campbell, of Boston, spent six weeks in going from town to town delivering lectures with lantern slides and other illustrations. An enormous amount of literature was distributed. It was estimated that 17,000 columns on this subject appeared in the various local papers. Much important statistical work has been done by the commission.

OKLAHOMA

Ophthalmologist, J. E. Fowler; Sanitarian, B. F. Hamilton.

No report.

OREGON

Ophthalmologist, J. F. Dickson; Obstetrician, W. E. Lewis.

Dr. J. F. Dickson reports: There is not much to report except in preliminary work. Papers have been read before the State and County societies, the actions of the American Medical Association heartily endorsed, and at the last meeting of our State Board of Health, held on the 25th, ophthalmia neonatorum was placed on the list of diseases to be reported and a bulletin containing full directions for treatment, etc. (similar to that issued by the New Board) is to be sent to every physician and midwife in the state. The State Board of Health bulletin, which will be issued about the end of April, will also contain a chapter on the diagnosis, prophylaxis and treatment of this disease. Our State Medical Society meets next June, at which time definite plans will be made and a committee appointed to draft, or adopt, a suitable law covering all the points urged by your committee, and, with the aid of the City and County Medical Societies, a determined effort will be made to have it passed at our next legislature, which meets in January, 1911.

PENNSYLVANIA

Ophthalmologist, G. E. deSchweinitz; Obstetrician, Joseph Price; Sanitarian, Samuel G. Dixon.

Dr. Samuel G. Dixon: The Department of Health of this commonwealth has not been able to compile statistics on the prevalence of ophthalmia neonatorum, for the reason that the only law on our statute books referring to this disease requires that a report be made to medical men. This department did have copies of the Act, together with a circular letter, mailed to every physician in the commonwealth about one year ago. Copies with suitable letters were sent to all of the Department of Health Officers in the field, to the secretaries of the Boards of Health in all cities, towns and boroughs, and to every practicing midwife. No one connected with the department has published any papers on the subject but I did give wide newspaper publicity to the necessity for making reports at the time copies of the Act were distributed. This department is in full sympathy with the work and will be glad to co-operate with you in advancing the work.

RHODE ISLAND

Ophthalmologist, C. W. Van Benschoten; Obstetrician, D. F. Gray; Sanitarian, A. C. Sprague.

Dr. Gardner T. Swarts: As chairman of the Committee on Ophthalmia Neonatorum, I have to report to the Conference of State and Provincial Boards of Health of North America at its next meeting in Washington, April 28. I am receiving inquiries from the different state, either boards of health or ophthalmological societies, in reference to the nitrate of silver outfit. The supply which we sent out last year was fully appreciated by the physicians and we are sending out another supply this year. As the result of reading a very exhaustive report made by the Ophthalmological Society of the District of Columbia, I am looking up the question of utilizing sophol in place of the nitrate of silver. New York has sent out about 25,000 of the outfits, and Dr. Porter informs me that they had forty cases in 1909. I am about to write to the various secretaries of boards of health to ascertain which, if any others, have taken the matter up and how far they have gone.

SOUTH CAROLINA

Ophthalmologist, E. D. Parker; Obstetrician, E. S. Cathcart; Sanitarian, T. Grange Simon.

Dr. Kollock reports that in the latter part of the nineties, he presented the necessity of securing legislation for the prevention of the increase of blindness before the South Carolina Medical Association and finally succeeded in getting a law which was better than none. The law only applies to towns and cities of 1,000 inhabitants and over and the punishment for not reporting such cases was only a fine of twenty dollars or imprisonment for one month, or both. Dr. Kollock has devoted much time to this subject in his lecture to nurses of the Roper Hospital.

SOUTH DAKOTA

Ophthalmologist, E. O. Miller; Sanitarian, H. A. Peabody.

No report.

TENNESSEE

Ophthalmologist, G. C. Savage; Obstetrician, R. E. Fort; Sanitarian, J. A. Albright.

Dr. G. C. Savage: From time to time during the past quarter of a century the profession of our state have heard much of ophthalmia neonatorum and how to manage it. We have, up to the present, no law on our statute books touching this disease, and our legislature will not meet again until January, 1911.

TEXAS

Ophthalmologist, J. C. McReynolds; Obstetrician, C. E. Cantrell; Sanitarian, William Brumby.

C. E. Cantrell: A paper was read at the last meeting of the State Association at which it was suggested that a paper be read at the open meeting which is held annually in the county societies. This suggestion was adopted. From the Rules and Regulations of the Texas State Board of Health and made operative Feb. 1, 1910. Rule 22, "Nurses and Midwives shall report redness of eyelids or inflammation to Health Officer. Whenever any nurse, midwife or other person not a legally qualified practitioner of medicine shall notice inflammation of the eyes or redness of the lids in a new-born child under his or her care, it shall be the duty of such person to report the same to the local health authority, or in the absence, any reputable physician, within twelve hours of the time the disease is first noticed.

UTAH

Ophthalmologist, Fred Stauffer; Obstetrician, F. S. Bascom; Sanitarian, F. S. Bascom.

No new laws have been enacted during the past year regarding the prevention of blindness from ophthalmia neonatorum. No papers have been read before the medical societies or other organizations with reference to this subject. It is reported that there ophthalmia neonatorum is rare. There are some old laws on the statute books of the state which require a prevention treatment (Credé's method) and any physician not taking the precaution is rendered liable.

VERMONT

Ophthalmologist, F. J. Arnold; Obstetrician, C. W. Bartlett.

Charles S. Caverly: Nothing has been accomplished in this state during the past year toward the prevention of ophthalmia neonatorum and no papers have been read before any medical or popular organizations on this subject.

VIRGINIA

Ophthalmologist, J. A. White; Obstetrician, R. C. Kight; Sanitarian, R. W. Martin.

Joseph A. White: Nothing has been done in Virginia in regard to ophthalmia neonatorum. No papers that I am aware of have been read before the medical association, or any popular organizations. No laws in reference to the matter have been enacted. I have tried to interest our Board of Health in the matter, but so far without success, and it is a difficult matter to interest any of our legislature in laws regarding the public health, as there are no politics in it.

WASHINGTON

Ophthalmologist, David deBeck; Obstetrician, William H. Hall; Sanitarian, J. M. Semple.

Eugene R. Keeley: This state has no laws on the subject. I do not believe that any papers have been read on this subject before any of the medical societies.

WEST VIRGINIA

Ophthalmologist, T. W. Moore; Obstetrician, J. Cannady; Sanitarian, J. E. Robins.

No report.

WISCONSIN

Ophthalmologist, Nelson M. Black; Obstetrician, C. H. Mason; Sanitarian, C. A. Harper.

L. W. Hutchcroft: At the 1909 session of the legislature, this board succeeded in having enacted into law a provision very similar to the uniform law recommended by the association. This law together with instructions for the proper treatment of the disease, is printed in the "Powers and Duties," issued by our board and is also given on the covers of all birth booklets which are distributed to physicians, midwives and others persons required to report births.

WYOMING

Sanitarian, Fred Horton.

No report.

CONCLUSIONS

In a paper published in THE JOURNAL of the American Medical Association just prior to the meeting of 1906 and which resulted in the appointment of the committee on ophthalmia neonatorum, it was urged that the perfect organization of the physicians of the country in this great national body through its state and county constituents would make it possible and practicable to carry into effect a reform movement like the prevention of the unnecessary blindness of babies.

By the adoption of some uniform method of procedure which could be taken up in each of the states and in these through the district and county organizations, it would be possible in a comparatively short time to reach the ultimate unit and the entire profession acting together would exercise an influence that would be irresistible. Such a movement in a less coherent organization would be impossible and the exceedingly gratifying results which have so far been obtained have been due to the cordial effective and untiring support which has been given to the efforts of the central committee from one end of the nation to the other.

It became evident as the work opened up that a relatively uniform method of procedure was essential to success. Most physicians do not need to be told what to do to prevent or cure a gonococcic birth infection, but because of the infrequency of these cases in the daily work of the average general practitioner and the disastrous consequences which follow the neglect of early treatment, the danger in the occasional case is overlooked in a great number of cases and the aggregated blindness is, therefore, by no means inconsiderable. The only way in which the careless or indifferent individual can be reached is by making general the adoption of a plan which with him, as with others, will become a routine method of procedure. In some instances, a seeming indifference has been shown because of the expressed belief that in that particular section of the world, ophthalmia neonatorum is non-existent. In almost every such instance, further investigation has shown that the cases simply had not been brought to public notice. One exceedingly efficient health officer wrote that the disease was practically unknown in his little state, but a subsequent letter reported that he had found four cases in his own town. He has become a most enthusiastic propagandist for prophylaxis. Gonococcic birth infections occur wherever gonorrhea is found and this disease, alas, is ubiquitous.

If we would wipe out this pestilence, it can only be done through the coordinated efforts of the organized medical profession. So your committee urges once more and with added emphasis, its recommendations of one year ago: Make renewed efforts through the state and county societies to have births reported to the health officer promptly; secure adequate midwife laws or give such improved obstetric teaching as will drive the midwife out of business, as has practically been done in Boston; ask on every birth certificate, whether or not a prophylactic has been used, and if not, why not—not as has already been shown by the New York State Board of Health in its monthly Bulletin, as an infringement of personal liberty (for every obstetrician may of course do as he will)—but as a reminder, to the indifferent and careless, of the necessity of protecting the babe from possible disaster almost worse than death. Distribute the chosen and inexpensive prophylactic through the state Department of Health generously and gratuitously. Every time the accoucheur sees the little package with its warning literature, it is an impressive object lesson and if one child is thereby saved from blindness, it is worth more than the cost of the distribution of the preparation throughout an entire state. Secure in the cities adequate provision in the hospitals for children in whom infective inflammation has occurred; special nurses for continuous day and night duty are expensive and increase the *per capita* cost of maintenance. They are not always provided for pauper babies, but there is no hospital management so devoid of human feeling as to permit even a beggar's child to become blind when the danger is pointed out. Moreover, a blind person saddled for life on a community is an expensive luxury. Prophylaxis and early treatment are prudent economic measures on the part of any commonwealth.

It early became apparent to your committee that any preventive propaganda to be successful must have the support of the general public. When the patient reaches the physician, the disease is an accomplished fact. In order that it may be anticipated and prevented, measures must be initiated and carried into effect by the people themselves. Our efforts for the prevention of tuberculosis never gave any hope of success until they took the form of a popular movement. Your committee was exceedingly fortunate, therefore, as already reported, in securing the cooperation of the committee on prevention of the New York Association for the Blind with the most generous financial support of the Russell Sage Foundation. Six valuable publications have been issued by this latter organization for general gratuitous distribution. An extensive practical exhibit on ophthalmia neonatorum with stereopticon slides and the skeleton of a lecture has been provided and will be loaned to our committees for demonstrations before state or other societies, or for popular lectures on any occasion when not otherwise in use. Associations have also been formed in others of the states, and in several of them commissions for the blind, that of Massachusetts having an annual appropriation of forty thousand dollars, and each is making the prevention of blindness one of its chief ends and reasons for being.

It became apparent with this multiplication of agencies working along similar lines and with like ends in view that there would soon be an overlapping of effort and waste of energy unless all of this work could in some way be coordinated. This possibility was emphasized by a letter which came in January last to Miss Louisa Lee Schuyler, chairman of the committee on prevention, and also a member of the Sage Foundation Trust, the woman to whom the success of this movement is largely due. Actively occupied as she is in the wise direction of a number of important charities, she still finds time for personal service in this one, the prevention of unnecessary blindness. This letter came from Mr. James P. Monroe, chairman of the Massachusetts Commission for the Blind. A portion of it reads as follows:

"In view of the fact that this work is still in the experimental stage, that there is possible danger of its taking wrong directions, and that there is certain danger of unnecessary duplication of effort, it would seem to me very desirable to hold, at a comparatively early date, an informal conference, to which should be invited representatives from New York, Massachusetts, Ohio, Pennsylvania, Maryland, New Jersey and perhaps one or two other states. Such a round table conference would help, generously supported by the Sage Foundation, along lines that would be most effective and least liable to needless duplication. We fear, unless this movement for

prevention is kept in the controlling hands of those who have had experience, there is danger that it may be carried forward in an unwise way by amateurs."

The conference suggested was held in New York on February 16, and all of the states mentioned were represented except New Jersey. The presiding officer was Mr. John N. Glenn, director of the Russell Sage Foundation. A simple form of organization was effected and a committee appointed with authority to call other meetings as occasion might require.

The general sentiment expressed by representatives from all of the states was that success in the prevention of blindness was contingent on one word, cooperation, and the representatives from each of these states gave their hearty assurances of willingness to aid in a general movement on these lines.

It will be readily seen that the rapid development of this movement with its important lay associations soon made it evident that it could not be adequately managed by any ordinary medical committee. The effective work accomplished in one state may be utilized with great advantage in another; medical and lay committees can be brought together and a plan of campaign determined on. The literature used in one state can often serve as a basis for like publications in another. But such work to be successful would require the entire time of a capable trained man. Our necessities were, therefore, again presented with the certainty of a sympathetic hearing to the trustees of the Russell Sage Foundation and again an appropriation was made which made the appointment of such a man possible. The trustees have chosen for this work, Mr. Samuel E. Eliot, a graduate of Oxford and Columbia universities, a man especially endorsed and excellently trained for this important work. His services are offered to our committees wherever they may with advantage be employed.

So general and widespread has this movement become and so ready has been the recognition of the need of cooperation that the prevention of blindness has been chosen as one of the topics to be considered at the National Conference of Charities and Corrections to be held in this same city (St. Louis) in May, under the able chairmanship of Dr. Charles Emerson, now of Clifton Springs, formerly of Johns Hopkins University, Baltimore, and whose work in hospital social service in that city is so well and widely known. The paper will be read by Miss Carolyn C. Van Blarcom, the able secretary of the committee on prevention of the New York Association for the Blind. The theme will again be coordinated work and the appointment of a committee from this great organization will be requested.

Still further, with the broadening of the subject, the necessity of the interest and the influence of the educators of the country is evident. To lay the foundation for the development of this greater preventive work an address will be delivered before the National Educational Association at the meeting in Boston in July, on the Conservation of Vision and the Prevention of Blindness, and the aid of a special committee will be invited from that organization.

One of the most efficient agencies for the promulgation of this propaganda has been the Federation of Woman's Clubs and the Public Health Education Committee of this Association. This again affords an organization so complete that the entire country may be effectively and quickly covered.

It is evident from the foregoing that just now the conditions of time and circumstance present extraordinary opportunities for preventive work on ophthalmic lines with an all but universal readiness to aid in this movement. To be successful, however, it is essential that it be guided and directed by medical men.

The committee on ophthalmia neonatorum in each state makes an excellent nucleus for the development of this larger work which might be augmented by committees from the National Association of Charities and Corrections, the National Educational Association, the Committee on Public Education of this Association, the Confederation of Woman's Clubs and other allied organizations. These could accomplish ends which for any one of them alone would be impossible.

Your committee therefore recommends that this work be continued with its scope broadened and enlarged to comprehend in its largest sense the prevention of blindness.

Most respectfully submitted.

F. PARK LEWIS, Chairman.
J. CLIFTON EDGAR.
F. F. WESBROOK.

On motion, the report was adopted and the committee continued.

The Chairman stated that he would be glad to consider a motion to limit the time of the reading of the reports.

Dr. C. R. Woodson, Missouri, moved that the reports be read by title or not exceed five minutes.

Seconded.

Dr. C. E. Cantrell, Texas, said 5 minutes is not sufficient time for making such reports.

Dr. Alexander R. Craig, Pennsylvania, moved to amend that the time limit be 10 minutes.

The amendment was seconded, accepted, and the original motion as amended was carried.

Dr. Henry O. Marcy, Massachusetts, Chairman, presented the report of the Committee on Davis Memorial.

On motion of Dr. A. P. McCormack, Kentucky, the report was referred to the Board of Trustees.

The report of the Committee on Nomenclature and Classification of Diseases, Dr. Frank P. Foster, New York, Chairman, was called for, and in the absence of Dr. Foster, Dr. Alexander R. Craig, Pennsylvania, moved that the report be read by title and referred to the Reference Committee on Miscellaneous Business.

In the absence of Dr. Walter B. Cannon, Massachusetts, Chairman, the report of the Council on Defense of Medical Research, on motion of Dr. A. P. McCormack, was referred to the Reference Committee on Legislation and Political Action.

Dr. Charles S. Bacon, Illinois, Chairman, read the report of the Committee on Patents and Trademarks.

Dr. Alexander R. Craig, Pennsylvania, moved the adoption of the report with its recommendations, and that the committee be discharged.

Seconded.

The report was discussed by Dr. C. S. N. Hallberg, Illinois, who moved that the report be referred back to the same committee for the purpose of considering the question of aspirin, to which reference was not made in the report of the committee.

Seconded.

Dr. E. J. Goodwin, Missouri, moved as a substitute that the report be referred to the Reference Committee on Legislation and Political Action.

Seconded.

The motions of Drs. Hallberg and Craig having been withdrawn, the President put the motion of Dr. Goodwin, which was carried, and the report was so referred.

Dr. Thomas McDavitt, Minnesota, Chairman, read the report of the Committee on Uniform Regulation of Membership.

It was moved and seconded that the report be referred to the Reference Committee on Amendments to the Constitution and By-laws.

Dr. W. H. Sanders, Alabama, stated that for a long time he has entertained and maintained some definite views with regard to the thorough and radical reconstruction of the Constitution of this Association, and not seeing any prospects of carrying out those views by participating in the work of this committee, he declined to serve on it, and now asked that his name be stricken from the committee. He has always believed that this Association ought to be an association of state organizations and not an association of individual physicians of the different states, and therefore if it is an association of state organizations, it should have no control over the affairs of county medical societies; that these matters should belong entirely to the state.

Dr. Alexander R. Craig, Pennsylvania, moved that Dr. Sanders be permitted to withdraw his name from the report of the committee.

This motion was seconded and carried, and the report of the committee was then referred to the Reference Committee on Amendments to the Constitution and By-Laws.

In reference to the report of the Committee on Elaboration of Principles of Ethics, the General Secretary read the following letter from the Chairman of this committee, Dr. Frederick C. Shattuck, Massachusetts:

BOSTON, Jan. 13, 1910.

DR. GEORGE H. SIMMONS.

Dear Doctor:—After preliminary correspondence and some interchange of views, the Committee on the Elaboration of the Principles of Ethics of the American Medical Association met in Atlantic City, June 9, 1909.

After full discussion, it was unanimously voted that it is not expedient to take any action at present. The Principles of Ethics are fairly well set forth by the Society now. This country is so large, and custom, as well as the conditions of life, vary so widely with the character of the communities, states and groups of states which comprise the country, that the committee believe it to be an impossible task for the American Medical Association to cover the whole ground and provide for anything like the variety of questions which arise and are bound to arise. The Association sets forth the general principles of ethics, and it seems to your committee far better to allow the individual state societies to provide for details in such way and as far as they may deem wise.

On motion of Dr. Edward Jackson, Colorado, the report was received and the committee discharged.

The report of the Committee on Revision of Pharmacopeia, Dr. Reid Hunt, District of Columbia, Chairman, was, on motion, referred to the Reference Committee on Miscellaneous Business without being read.

The report of the Committee on Anesthesia was read by the Chairman, Dr. James G. Mumford, Massachusetts.

Report of the Committee on Anesthesia

To the Members of the House of Delegates of the American Medical Association:

Your Committee on Anesthesia has the honor to submit the following report of progress:

This committee, appointed at the annual session in June, 1909, is properly the successor of the Anesthesia Commission of the Surgical Section, a Commission which existed during the years 1907, 1908 and 1909, and has now ceased its functions.

The present Committee on Anesthesia met in New York for organization on Oct. 29, 1909. Dr. J. G. Mumford of Boston, was elected chairman; Dr. Alexander Lambert of New York, vice-chairman, and Dr. H. A. Fowler of Washington, secretary.

Inasmuch as the committee had received no instructions from the Association regarding its purpose or method, the committee thought best to pursue its work somewhat after the fashion of the previously existing Commission of the Surgical Section. Accordingly, it has followed certain lines of research on anesthesia and anesthetics, devoting itself especially to four topics.

1. Research on the best anesthetic to use under varying morbid conditions.

2. Further investigation on the value of the various ethyl compounds as anesthetics.

3. Further investigation on the value of nitrous oxid as an anesthetic.

4. An investigation of the use of anesthetics in traumatic surgery, including military surgery.

Your committee met again on March 20, 1910, in New York, and again on June 6, 1910, in St. Louis. It reports in general terms progress, though it finds itself unable as yet to submit full and final reports for publication.

1. The research on the best anesthetic to use under varying morbid conditions has been confided to the direction of Dr. George W. Crile, of Cleveland, who, with his associates, has kindly consented to pursue the investigation, and has already made gratifying progress, some of which has been reported in current medical journals. Dr. Crile's work has been largely on the use of nitrous oxid, combined or not combined with morphin and scopolamin.

This investigator now informs the committee that he has employed nitrous oxid, combined with oxygen, in 1130 cases; that of these cases 1000 represent major operations; of these 1,000, 139 had nausea (9 severe nausea, and 4 of the 9 nausea lasting two or three days); in all the other 861 cases there was practically no nausea. When scopolamin and morphin were employed before the nitrous oxid and oxygen (759 cases) there was often a slight feeling of nausea during the recovery, and sometimes immediate vomiting.

Dr. Crile employed these forms of anesthetics (nitrous oxid and oxygen, with or without scopolamin and morphin) in his general routine work, and was satisfied that in the hands of highly skilled anesthetists the method is the best yet devised. This statement of Dr. Crile's is a supplement to a statement made by him in the *Southern Medical Journal* for January, 1910, in which he discusses the effects of ether on the vital forces and concludes (a) that it contributes to postanesthetic depression and (b) that it impairs immunity. These matters will be treated by the committee at length in its completed report, to be published later.

In connection with the subject of ether and immunity your committee will publish a paper also by Dr. Evarts A. Graham, of Chicago, whose important contribution reaches the committee through the courtesy of that investigator.

2. Further investigation on the value of the various ethyl compounds as anesthetics strengthens the conviction that these compounds are associated with a relatively high death rate; while the compounds themselves are not serviceable for prolonged anesthesia.

3. Further conclusions on the value of nitrous oxid as an anesthetic are summed up in a paper prepared by Dr. W. D. Haggard. His conclusions are essentially those already enumerated in Dr. Crile's contribution, the upshot of the investigation being that as a routine anesthetic nitrous oxid has a peculiar value, but that it must always and inevitably be administered by a highly trained specialist in anesthesia. Your committee cannot too strongly deprecate the routine use of nitrous oxid by general practitioners.

4. The committee has planned an extensive investigation of the uses of various anesthetics in military and traumatic surgery. This investigation is in the hands of Dr. H. A. Fowler, of Washington, who is assisted by Col. LaGarde, of the army, by Dr. Robert T. Miller, of Pittsburg, and by Dr. Gaston Torrance, of Birmingham, Ala. The committee thinks it unlikely that a satisfactory statement of the matters under this heading can be made before one, and possibly two, years to come.

In concluding this extremely brief statement of progress, the committee insists again on the wide distinction between anesthetics proper for use by general practitioners and anesthetics which may be employed by experts. As time goes on and wider knowledge accumulates, your committee feels more and more convinced that the distinction between these two classes of anesthetists is vital, and it repeats the statement in the report of the Commission on Anesthesia for the Surgical Section in 1908:

1. "That for the general practitioner, and for all anesthetists not specially skilled, ether must be the anesthetic of choice—ether administered by the open or the drop method.

2. "That the use of chloroform, particularly for the operations of minor surgery, be discouraged, unless it be given by an expert."

And your committee now adds the further recommendation, as already stated, that the use of nitrous oxid, whether combined with air or oxygen, and whether or not preceded by scopolamin and morphin, be confided invariably to the care of an expert.

J. G. MUMFORD, Chairman.
ALEXANDER LAMBERT.
W. D. HAGGARD.
H. A. FOWLER.
H. C. WOOD, JR.

On motion of Dr. Alexander R. Craig, Pennsylvania, the report was accepted, the committee continued, and referred to the Reference Committee on Miscellaneous Business.

Major M. W. Ireland, U. S. A., Chairman, read the report of the Committee on Selection of Insignia for A. M. A.

On motion, the report was referred to the Reference Committee on Miscellaneous Business.

Dr. Edward Jackson, Colorado, Chairman, presented the report of the Committee on Establishment of Physicians' Sanitarium.

Dr. A. T. McCormack, Kentucky, moved that, inasmuch as this report involves the appropriation of money, it be referred to the Board of Trustees.

The General Secretary read the report of the Committee on Monument to Civil War Surgeons.

Report of the Committee on Memorial to Medical Officers Who Died in the Civil War

To the Members of the House of Delegates of the American Medical Association:

By reference to the official minutes of the sixtieth annual session held at Atlantic City, N. J. (THE JOURNAL, June 19, 1909, p. 2077), it will be observed that the house adopted the favorable report of the Reference Committee on Reports of Officers in reference to the erection, in the national capital, of a memorial to the medical officers who gave up their lives during the Civil War.

Of the central committee of five authorized by the House of Delegates to be appointed by the president at that time, Drs. S. Weir Mitchell of Philadelphia, and G. Lane Taneyhill of Baltimore, have accepted appointment. These members, desiring to have a representative from the medical corps of the regular army on said committee, insisted on the appointment, by himself, of Col. William C. Gorgas as a suitable member. It has also been suggested that the two remaining positions be filled by the appointment of an available volunteer surgeon of the Union Army and a similar one from the Confederate Army. This step is now in progress of being consummated. By this method the central committee of five will be the better enabled to complete the general committee of one from each state, etc., as authorized by the House of Delegates.

Your committee confidently believes that the meritoriousness of the object contemplated strongly appeals to the sense of justice of this intelligent House, especially when we consider that it is "to commemorate men who fell in the service of our common humanity and who belonged to that great guild which no war can tear asunder."

Your committee respectfully recommends that it be continued, with the same privileges, instructions and appropriation authorized by the House at the Atlantic City meeting.

Respectfully submitted. WILLIAM C. GORGAS.
S. WEIR MITCHELL.
G. LANE TANEYHILL.

On motion of Dr. Alexander R. Craig, Pennsylvania, the report was adopted with the recommendations contained therein approved, and the committee continued.

Under the head of "New Business," Dr. Alexander R. Craig presented a petition to the House of Delegates which contemplates the formation of a new section, to be known as Section on Physical Forces in Medicine, and moved that the petition be referred to the Reference Committee on Section and Section Work.

Dr. E. Carson Hay, Hot Springs, Ark., presented a petition for the creation of a new section on Urology and Venereal Diseases, saying that 130 or 140 names were appended to the petition.

Dr. Hugh Young, Maryland, moved that it be referred to the Reference Committee on Sections and Section Work.

Seconded and carried.

Dr. W. H. Sanders, Alabama, presented the following resolutions, adopted by the Medical Association of the State of Alabama at its meeting, held in Mobile, April 19-22, 1910:

WHEREAS, Efforts are now being made to provide by Congressional enactment for the establishment of a National Public Health Organization; therefore, be it

1. *Resolved*, By the Medical Association of the State of Alabama, that in providing for such an organization, it is the sense of this body that the principles of the Constitution involving the exercise of the police power, as announced in a long line of decisions of the Supreme Court of the United States, should be rigidly adhered to.

2. That any organization for the exercise of Public Health Functions that may be established should be widely and effectually divorced from politics, to the end that all persons who may occupy official positions therein should be selected on the basis of their qualifications as sanitarians and their administrative ability, and not on party affiliation.

3. That the proposed organization should sustain some direct and organic relation to the medical profession of the several states as organized and chartered for public health purposes.

4. That a copy of these resolutions be transmitted to the Senators and Representatives in Congress from this state, and to the American Medical Association at its next meeting.

The President stated that unless there was some objection, these resolutions would be referred to the Reference Committee on Legislation and Political Action, and as there was none, the resolutions were so referred.

Dr. Sanders also presented another set of resolutions which were adopted by the Medical Association of the State of Alabama at its meeting, held in Mobile, April 19-22, 1910:

WHEREAS, A committee was appointed at the last meeting of the American Medical Association to reconstruct and rewrite the Constitution and by-laws of that body, and to investigate and report on other matters connected with the organization of said body; and

WHEREAS, It is expected that said committee will report the results of its work at the forthcoming meeting of the American Medical Association; therefore, be it

Resolved, By the Medical Association of the State of Alabama, that the delegates of this Association to the next meeting of the American Medical Association be, and they are hereby, instructed to insist on the incorporation into any new constitution that may be adopted by the American Medical Association of the following principles:

1. That the fundamental and important principles of organization be embodied in the constitution, and that the principles of secondary importance and the details of organization be embodied in the by-laws, the reverse being largely the rule in the present constitution and by-laws of the American Medical Association.

2. That in providing for the offices of the Association, the principles should be laid down that no person should at the same time fill two official positions.

3. That a charter for the American Medical Association be obtained from the United States Government, should it be ascertained that the right to grant such a charter resides in the Congress of the United States.

4. That whether a charter for the American Medical Association be obtained from the United States Government, or from a state government, it should incorporate the American Medical Association as a body and not the Trustees thereof, as is the case under the existing charter.

On motion, these resolutions were referred to the Reference Committee on Amendments to the Constitution and By-Laws.

Dr. Samuel Wolfe, Pennsylvania, presented the following resolutions:

Resolved, That the House of Delegates hereby specially endorses and approves the statistical and editorial work of THE JOURNAL of the American Medical Association in reference to the fatalities and casualties resulting from the present methods of celebrating the Fourth of July, now carried on over a period of more than seven years, and recognizes in it the main factor in the crystallization of sentiment and the chief incentive to the activity so apparent within the last few years.

Resolved, further, That we urge the continued and additional cooperation in this important field of the newspaper and magazine press of the country, of all municipalities, of civic, religious and social organizations, of all public-spirited men and women, and especially in an organized way of all state and county medical societies.

On motion, the resolutions were referred to the Reference Committee on Hygiene and Public Health.

Dr. Joseph A. Capps, Illinois, presented the following resolution, which was referred to the Reference Committee on Sections and Section Work:

WHEREAS, By reason of the vast strides that are being made in Pathology, Bacteriology, Urinology, Serum and Vaccine Therapy, and the development of the various scientific aids to diagnosis, and because the facilities for making use of these many agencies in the cure of disease are costly and complicated; and further, because they demand skill and education of a highly technical order for their successful use, hospitals in which these scientific instruments can be concentrated and employed are becoming more and more a necessity for the treatment of the poor, but for every class of society. It is not necessary in this modern day that hospitals shall nurse and feed the sick; they must at the same time take scientific care of patients under the modern practitioner's directions. To do this, it is necessary to have scientific men, specially trained, in charge of modern hospitals; and that these hospital administrators shall study the problems of the medical profession in conjunction with the practitioners whom they must aid. Recognizing these necessities, the House of Delegates of the American Medical Association therefore

Resolved, That there is hereby created a section of the Association to be known as the hospital section.

Dr. Luther M. Halsey, New Jersey, stated that at the last session of the House of Delegates of the American Medical Association, held at Atlantic City, N. J., a resolution was introduced asking that the Committee on Scientific Exhibit be published in THE JOURNAL along with the other committees. This was done at the request of Dr. Wynn. A great deal of confusion had arisen because the Committee on Scientific Exhibit was not published in THE JOURNAL, and Dr. Wynn had received many letters from different parts of the country asking the name of the chairman on Scientific Exhibit. He therefore moved that this matter be referred to the proper committee. He would suggest, further, that the whole matter of arranging for the Scientific Exhibit be placed in the hands of Dr. Wynn, with power to act, rather than be entrusted to the local committee.

The President stated that unless there was objection, this matter would be referred to the Board of Trustees, and as there was none, it was so referred.

On motion, the House of Delegates adjourned until 2 p. m. Tuesday.

(To be continued)

Opening General Meeting

Tuesday, June 7, 10:30 A. M.

The general opening meeting of the Sixty-First Annual Session of the American Medical Association was held at the Odeon Theater, Tuesday, June 7, 1910, at 10:30 a. m. The meeting was called to order by President William C. Gorgas, of Panama.

Prayer was offered by the Rev. Charles S. Mills, D.D., St. Louis.

Address of Welcome

The President introduced Dr. Henry Schwartz, President of the St. Louis Medical Society, who delivered the address of welcome:

Mr. President, Ladies and Gentlemen: On behalf of the St. Louis Medical Society I extend to the officers and members of the American Medical Association, to their families and to their guests, a most hearty welcome. The St. Louis Medical Society appreciates the honor you have conferred on it by convening in St. Louis. It likewise appreciates the help and the encouragement which your coming here gives to the work of the organized medical profession of this city. Your influence has already helped us in our efforts to unite all reputable practitioners in one harmonious fellowship. We expect still greater benefit from this convention because our fellow citizens will learn that the St. Louis medical profession is an integral part of the great American Medical Association. They will learn what a mighty factor that Association is in promoting the science and art of medicine, in elevating the standard of medical education, in securing and enforcing just medical laws, and in enlightening and directing public opinion in regard to the broad problems of hygiene. Such information will cause the citizens of this great commonwealth to rally around its medical profession and to assist it by every effort to do its full share of this great and patriotic work.

Your program for this convention shows what an immense amount of work will be done in the next few days, and we sincerely trust you will be able to mix your work with recreation in such a way as to live up to that part of the constitution which pledges us to promote friendly intercourse among

American physicians. We have lived in joyful expectancy of your visit, and now you are with us, every member of the St. Louis Medical Society stands ready to grasp you by both hands and shout from the bottom of his heart, welcome! welcome! welcome!

Address of Welcome on Behalf of the Medical Profession of Missouri

Dr. Herman E. Pearse, Kansas City, president of the Missouri State Medical Society, was then introduced and delivered an address of welcome:

Mr. President, Ladies and Gentlemen: We are a great and growing state here in Missouri; we have a great and growing profession, and we recognize you as the greatest and strongest body that we have in this country; we welcome you here for the good that you can do to the people that we have been working for. If you work as hard in the next five days as we have here in the last ten years, this speech of welcome will be followed by a speech of gratitude which will require a better talker than I to do it justice.

We welcome you here to-day, to help us in the battle that is being fought in the United States for the freedom of its people. We see you come with every influence in the United States that is opposed to the public health movements skulking at your heels and flanks and proclaiming its attacks in every daily paper. The "pure food law" is making unprofitable the business of every quack doctor, and every one who has fattened on the misfortunes of the poor and on the credulity of the ignorant, and we welcome you to the four or five days' battle here. In this connection I am reminded of what one of our famous generals said, who when little reenforcements came to him for duty: "Wade right in, gentlemen, you will find elegant fighting all along the line."

Address of Welcome on Behalf of the Medical Profession of St. Louis

DR. W. G. MOORE, St. Louis: *Mr. President, Ladies and Gentlemen:* I am aware that five minutes has been allowed for what we have to say. I wish it were longer for myself, but for your sake I am glad it is no longer. I realize that no pleasanter duty could have been given me than to welcome you to this city.

I believe that this Association has in its present and in its incoming President two of the greatest and most useful men within the borders of the United States. Their usefulness goes out like the sunshine on the just and the unjust. And the Governor is here honoring himself in honoring you. He is ready to extend a full and free pardon for any sins of omission or commission that may be committed within the borders of Missouri during the next four days. The Mayor is likewise here to present to you not only the key to the great outer gate, which admits you to our warmest hospitality, but also a bunch of keys which unlocks every door and admits to the treasures or pleasures under his control. I am here, gentlemen, to speak to you a word for the great militant body of the St. Louis profession—a body of men than whom you will not find more noble, efficient or loyal, the maledictions of the Carnegie articles to the contrary notwithstanding. You will find among them royal companions. You will find among them also men capable of filling the highest offices in your gift with credit to themselves and to you.

Many long years have passed since you were our guests, entirely too long for our hospitality, which fact we hope to prove to you before our deliberations come to a close. The North, East, South and West are equidistant from this convention city. I recognize before me the greatest body of men that can be gathered together in America, and I mean that as fully as I am capable of meaning anything. Judged from the standpoint of pure philanthropy and the possibilities of the greatest good to the greatest number of our fellow citizens, there comes from the city of New York the cheery information that you are a trust—the informer is one B. O. Flower, the president of the "National League for Medical Freedom" and the editor of the *Twentieth Century Magazine*. Flower has caused to be printed in our daily papers the following questions in "scare" headlines:

"Do you want government by political doctors?"

And I answer: "We do!"

"Do you want health and hygiene to be represented by an army of United States Inspectors under the direction of a Medical Bureau?"

And I answer, that this is a consummation devoutly to be wished.

He asks if we know that William H. Welch, president of the American Medical Association, told the Senate Committee on Public Health and National Quarantine, that physicians wanted such a National Department of Public Health for the purpose of influencing state and municipal boards of health, and that he felt the Constitution could be so interpreted as to give the national board the power to regulate health affairs, nationally. We did not know this, but if it is true, it affords us another opportunity to hurrah for Welch and to applaud him.

If the American Medical Association be a trust, it furnishes a part of what our political brethren have sometimes said—that there is such a thing as a good trust—a statement which I never believed before.

This is a trust concerning which we may say that about 20 or 40 per cent. of its earned increment goes to sweet charity; a trust whose every discovery or invention is for the benefit of the sufferers of our race and becomes the property of prince and pauper alike; a trust whose efforts redound to the uplift of mankind and which constantly limits its own sources of income, by diminishing the ills that flesh is heir to.

If it be a sin to decry such a trust, then I glory in the companionship of such sinners. The medical profession has never asked for a law that was not beneficent in its intent, and if it is true and loyal to its traditions, it never will. Let us differ as we may and will about different questions, when it comes to the enactment of laws for the benefit of the people, we band ourselves together and throw our whole strength on righteousness and weary not in well-doing. All hail, then, to the honorable Senator Owen of Oklahoma, who has become the advocate of the creation of a national Department of Public Health, and of a position in the Cabinet of the President, at Washington, which we should have had from the beginning of the Government. Let us see to it in the future that all positions of this character are held by medical men in municipal, state and national governments, who are fully qualified to fulfil their duties without regard for politics, and so long as they continue to discharge those duties successfully, they should not be removed for mere political expediency. It is not fair that men who are willing to devote their lives to the sick in body and mind should be treated in such a manner.

There are no strangers within our gates; not even those brave men who have journeyed to us from across the seas, to mingle their efforts with our own that the suffering of humanity may be lessened and that the world as an abiding-place may be made better.

Address by Governor Hadley

HON. HERBERT S. HADLEY, Governor of Missouri: *Mr. President, Ladies and Gentlemen:* I am very glad indeed, as the chief executive of the great State of Missouri, to extend to the members of the American Medical Association a cordial welcome within the confines of this state. I not only welcome you here to our soil, but I welcome you to our splendid Italian—or Siberian—climate. It is a distinct pleasure, this morning, to be with so many learned members of the medical profession. It is so often that we lawyers have the medical profession with us, that it is a privilege for us to turn the tables, and we enjoy not only the sense of pleasure, but a sense of security on an occasion such as this, when we laymen realize that there is no danger of anybody dying without medical assistance.

I do not know whether I am in the right place, or not. The remarks of the last speaker seem to indicate that there is some question as to whether the American Medical Association is a trust, or not. I consider myself sufficiently expert on the subject of trusts, however, to say that this trust is welcome and thrice welcome within the confines of the State of Missouri. I only hope that this trust, which I here now diagnose with complete confidence, as a good one, at the able direction of its incoming president, Dr. Welch, can assist in doing for the United States of America, what the medical profession, under its outgoing President, Dr. Gorgas, with the assistance of the United States Army, has done for the Canal Zone.

I am glad to know that you members of the medical profession not only believe in something besides making money and keeping out of jail, but that you are also willing to fight for your belief; and if the other professions of this country—particularly my own—are to continue to rank among yours in respectability and public confidence, it must enjoy the distinguished pleasure of imitating your example.

I trust that the sessions and deliberations of this Association will be of benefit to the people of this state. As has been well said, there can be gathered together no body of men whose deliberations would excite more general interest than the members of this profession. Your work has to do not only with the problem of human weakness and human disease, but it has to do with the overpowering problem of human

existence itself. Twice in the life of each of us we require the services of a physician, and your capacity for usefulness is not limited to the relief of human weakness and disease. Your work has not only contributed to the advancement of civilization, but it has increased the duration of life and added to the capacity of man for healthful and proper enjoyment.

Sometimes, in your efforts to make progress and to acknowledge error, doubt is aroused and suspicion raised in the minds of the layman as to the science of your profession itself; when we find one year a certain method of treatment of disease is abandoned and a radically different method adopted, the cry is apt to be raised, that, after all, the practice of medicine is but an intelligent system of empiricism, and that we are taking long chances when we summon a medical man to help us in distress. To my mind, that is one of the most hopeful indications of progress that unfortunately is not imitated by all of the learned professions. The advancement of the medical profession along scientific lines constitutes one of the great achievements and triumphs of this wonderfully progressive age.

It may be, however, that we are moving in cycles, because it is unquestionably true, that much that you do to-day has been done in the past and then has been forgotten. I find that many of the instruments with which you surgeons perform your most delicate and scientific operations have been discovered in the ruins of antiquity—indicating that these operations were unquestionably known to, and performed by, the ancients. But, however that may be, it is a far cry from the herbs and incantations of the medicine-man of the savages to the asepsis of the operating-room and the antitoxins of the scientific medical man of to-day. And the work you have accomplished along that line, although it may seem at times to cause public distrust or lack of confidence, is simply, in my judgment an indication of the feverish anxiety that you have to move faster to the consummation, which I am confident, you will eventually reach when you find an antitoxin for every disease that is known to the human system.

I have heard a story from one of the leading medical men of this country, told with anguish of spirit, as to how he lost a splendid boy from diphtheria, because physicians, although they had discovered the antitoxin of that disease, had not yet learned the science of its administration. But no one can stand by the bedside of a child, watching it clutch its mouth and throat in its fight for air, and see the wonderful effects of the administration of antitoxin against diphtheria, without taking off his hat in gratitude and respect to the scientific medical man for this wonderful contribution to the development of medical science.

Truth never seems so simple as when it has been scientifically ascertained and announced; and after many of these things you medical men discover and tell us about, we wonder that you did not discover them and tell us about them many years ago. Nobody of intelligence to-day questions the germ theory of disease, and yet that theory was scientifically ascertained and definitely announced within my own lifetime. To-day the medical profession knows accurately the habits and all the characteristics of the germ of tuberculosis. We are simply grateful to you for having done so much, and that you have taught the individual how he may substitute himself in the manufacture of vaccines from his own person and prosecute this work of segregation for himself.

But your activities as a profession, fortunately, have not been confined to these professional investigations and discoveries that have to do with the treatment of special diseases. I undertake to say that your work along the lines of preventive medicine and of movements for the improvement of the public health are, more than any others, the reasons why the medical profession holds—as it does hold to-day—its deservedly high rank in public estimation and esteem, and the work and the future usefulness and development of the medical profession, in my judgment, will lie not so much in curing or in making sick people well, as it will in preventing well people from becoming sick. Along the line of correction of those conditions which result in the impairment of public health, medical men and the public official have come in contact and the public official who is performing his duties with the sense of proper obligations has found in the medical man not only a willing, but an effective coadjutor for the accomplishment of proper results. And I undertake to say that the time is not far distant when the American people will recognize the inconsistency—if not absurdity—of spending millions of dollars each year for the protection of our cattle and our sheep and our hogs from the ravages of disease, and spending but a few paltry dollars for the protection of our women and men and children.

I am glad to welcome you to the confines of this splendid commonwealth this morning, because public sentiment of this state has been in accord with the work of the advanced and progressive members of your profession. Up to the last session of the state legislature we had only a State Board of Health, with limited powers for the accomplishment of those measures of possibility that always lie within the work of such a board. By that legislature there was enacted a law establishing in this state a Bureau of Vital Statistics and giving new powers to the State Board of Health for the accomplishment of the proper measures of usefulness.

That Bureau of Vital Statistics has been in operation for three months or more, and during that time statistics have been kept and recorded, and I am glad to say this is an indication of the effectiveness of the medical profession in a certain class of cases, namely, the births numbered 16,000, while the deaths were only a little over 12,000. So, you see, here in Missouri we are both the opponents of race suicide and believe in the principle of the "full baby-buggy."

Further than this, I have taken the position that the State Board of Health should be composed of men who are interested in one of two lines of medical work. As I have the appointment of that board, I have a right to be discriminating, and that board must be composed of physicians who have been interested either in the improvement of medical education or in the protection of the public health. I have appointed, and I intend to appoint, on that board only members who receive the endorsement or recommendation of the State Medical Association.

I do not disregard or hold in light esteem the work of those investigators and, perhaps, I might say reformers, who are undertaking to improve the conditions of our public charities and our penal and reformatory institutions, when standing before this audience of medical men; and I feel it would not be improper for me to repeat what I said, when standing before a convention composed of workers along these lines of public charities, that I have received from no department of government so much sane, practical and effective assistance in the correction of conditions in our eleemosynary and penal institutions as I have received since I have been Governor of Missouri from the inspections and recommendations of the State Board of Health. In the work of improving the Missouri penitentiary we have succeeded in changing it from one of the worst penitentiaries in the country to one of the best, and in so doing I have received valuable aid from the inspections and the suggestions for improvement that have been given me by the members of the State Board of Health.

I understand, Mr. President, that the time of these speeches is limited to five minutes. I have some time yet allotted to me, and there is one other thought I must give expression to before my time is expired, and that is this: You, as a profession, are able to put your own houses in order. You have cleaned up your own Augean stables by driving from your ranks the quacks and abortionists and the charlatans and the impostors. I want to say to you that the State Board of Health in the State of Missouri has been actively on the firing-line, fighting a battle for a clean profession against the elements which foster disgrace and dishonor. In that regard I can say again, to the other profession, the legal profession, if it is to continue in public confidence and approval, it must follow your example, because we have in our ranks quacks and abortionists and charlatans and impostors in our pettifoggers and shysters and ambulance-chasers, and a certain class of lawyers who are all the more disreputable because, with greater capacity for injury in our legislative and judicial lobbyists, in eminent lawyers who, in order to screen rich clients, violate the law and bring the legal profession into disrepute, securing for them immunity.

I trust that in the general beneficial influence that will come from the deliberations of this convention there may percolate down or gravitate up to the legal profession something of that spirit of modern medicine which demands that the learned professions shall also be kept clean.

In conclusion, we welcome you here with interest and enthusiasm. I welcome you not only as the Governor of this State, but also as the Mayor of St. Louis. They go through the ceremony, every four years, of electing a Mayor here [laughter], but I happen to appoint the police power, and therefore I want to say to you, in conclusion, that the immunity that has already been extended to you by Dr. Moore was not a sounding brass or tinkling cymbal. We welcome you with pleasure, not only to our city, but also to our homes and to our hearts.

Address of Mayor Kreisman

HON. H. KREISMAN, Mayor of St. Louis: *Mr. President, Ladies and Gentlemen:* There remains but little for the Mayor of St. Louis to say in extending to you a welcome this bright spring morning. Governor Hadley has truthfully said that he confers by his authority and high office every immunity on you while in St. Louis. We hope that you may have a pleasant stay with us, as our hearts and our homes are open to you, and, my friends, may we have you with us more frequently than during the years that have passed since your last coming. I thank you.

Report of the Local Committee of Arrangements

Dr. W. B. Dorsett, the Chairman, made a brief report of the local committee of arrangements. He announced the places of meeting of the various Sections, the entertainments, the alumni dinners, etc.

The retiring President, Dr. Gorgas, introduced the President-elect, Dr. William H. Welch, who delivered his presidential address, which will appear in THE JOURNAL of June 18.

Society Proceedings

COMING MEETINGS

Maine Medical Association, Bar Harbor, June 29-30.
New Jersey Medical Society, Atlantic City, June 28-30.
North Carolina, Med. Soc. of State of, Wrightsville Beach, June 21.
Wisconsin, State Medical Soc. of, Milwaukee, June 22-24.

ARKANSAS MEDICAL SOCIETY

Thirty-fourth Annual Session, held at Little Rock, May 3-6, 1910

The President, DR. J. H. LENOW, Little Rock, in the Chair

Officers Elected

The following officers were elected for the ensuing year: President, Dr. R. C. Dorr, Batesville; vice-presidents, L. F. Magee, Frostville; J. B. Grammar, Swarey; and Thad Cothran, Walcott; secretary, Morgan Smith, Little Rock (reelected); treasurer, J. S. Wood, Hot Springs, Pine Bluff (reelected); editor, C. P. Meriwether, Little Rock (reelected); delegates to American Medical Association, J. T. Clegg, Siloam Springs; E. C. Hay, Hot Springs; alternates, B. Hatchett, Fort Smith; L. H. Barry, Hot Springs; councilors, H. R. McCarroll, Walnut Ridge; J. H. Kennerley, Batesville; S. A. Southall, Lonoke; A. D. Knott, Wilmot; H. H. Niehuss, Wesson; L. J. Kosminsky, Texarkana; J. C. Wallis, Arkadelphia; A. H. McKinzie, Dardanelle; C. T. Cannaday, Marshall; and M. S. Dibrell, Van Buren.

The next place of meeting will be Fort Smith, May, 1911.

President's Address: The Progress of Medicine

DR. J. H. LENOW, Little Rock, spoke of the flourishing condition of the society; referred to the early history of the organization, the difficulties met in its early life, and praised the indefatigable, unselfish labors of the pioneers. Their unity of purpose was the highest exemplification of professional ideals; they laid the solid foundation on which present component societies securely rest. He predicted that ere long public health in all the states would be under control and direction of non-political health commissions, selected for skill and executive ability. Closer relations between laity and the profession are foreshadowed by trend of times; together they would make common cause of promotion of measures to combat ravages of disease, and inauguration of a militant plan of leading the public out of sanitary and hygienic ignorance. He predicted a great and glorious future for preventive medicine.

The future honor and dignity of medicine, he said, rested on the thorough training of its votaries, higher standards of medical education and an elastic curriculum. The great need of a thoroughly equipped Board of Health and Bureau of Vital Statistics was referred to with the hope that the near future would bring about its consummation.

The triumphs of medicine are the result of laboratory investigations, and the antivivisectionists are cruelly ignorant of the benefactions conferred on humanity by the discoveries of Pasteur, Lister, Koch, Behring, Flexner, Stiles and Carrel.

It is the duty of the profession to take the public into its confidence and meet the false statements with the unvarnished truths, to open up bureaus of official information available to the public and to educate them in advance of any attempt to limit the freedom of scientific research with legislative restrictions.

Tuberculosis Campaign

A fund of $500 was appropriated as a contribution to the campaign against tuberculosis, to aid in establishing a traveling display and competent instruction from time to time.

Dysentery in Infants

DR. F. T. ISBELL cited as fruitful sources of infection, water, milk, raw fruits and vegetables—malnutrition resulting from improper feeding. Treatment: diet, hygiene, medication, rectal irrigation with bismuth in mucilage of acacia; high and low irrigation with hot normal salt solution.

Infant Mortality

DR. J. T. CLEGG, Siloam Springs: Deaths in infancy up to five years of age exceed the combined mortality from tuberculosis, typhoid and other epidemics; 5,000 infants die to one adult alcoholic mortality. I believe this to be due to heredity, accidents and injuries, improper feeding and lack of hygienic care. The laity should be admonished as to general sanitation and urgent need of wholesome feeding. Nine-tenths of babies are bottle fed. There should be rigid inhibition of fruits, cakes, candies, pastries, and especially strawberries and vegetables grown in contact with soil. Malted milk, infant foods and other so-called substitutes for mother's milk should be condemned. Most satisfactory results are obtained from modified cow's milk.

Acute Otitis Media and Mastoid Abscesses

DR. ROBERT CALDWELL, Little Rock: Predisposing causes are adenoids and hypertrophied tonsils, colds, fevers, diphtheria and other infections. Early paracentesis, irrigation and mastoid operation, if indicated, are the treatment. Extraordinary care is to be exercised in its execution.

Empyema

DR. D. E. BRODERICK, Kansas City: Many children succumb to undiscovered empyemata; more frequently primary than is generally believed. Empyema of newborn is generally due to streptococci; frequently it is a sequel to pneumonia. The onset may be acute or insidious; it is often mistaken for abdominal disease; all hectic temperatures should excite suspicion; sweating and diarrhea may be present. Percussion is a most valuable asset in examination. Forcible percussion is useless; dulness is stationary and not due to position; auscultation is often fallacious. The coin sound is corroborative only; vocal resonance is often ambiguous. Diagnostic difficulties are often very great. Basic diseases are often most puzzling of interpretation by physical methods. Exploratory thoracotomy should be done to clear up the massive signs in chest. Fibrotic lung is often revealed; pneumatic cabinets aid materially. Empyemata of nurslings are often revealed at postmortem. Goodhart's classification is helpful. Prognosis is good in pneumococcal form. Blood picture and *x*-ray and exploratory thoracotomy are paramount in differentiating empyema and pneumonia; strict attention should be given to apical displacements.

Infantile Scorbutus

DR. H. N. STREET, Argenta, condemned canned goods, artificial baby foods and boiled milk. Treatment, he said, consists of administration of orange juice, raw meat juice, unboiled milk, fresh air and sunshine.

Wassermann Reaction

DR. M. F. MOUNT, Hot Springs, gave the diagnostic value in 150 cases of suspected syphilis; 40 positive and 110 negative. Technic employed was the same as originally published by Wassermann, with the exception that he used guinea-pig heart antigen instead of syphilitic liver extract. Tests were made in each case with known positive control and known negative control; clinical history of patients unknown. Positive Wassermann reaction means syphilis; active mercurial treatment indicated. Negative means that for the time being treatment is not needed. Patient having had clinical syphilis should have test made frequently over long period of time.

Intramuscular Injections of Mercury

DR. EUGENE C. HAY, Hot Springs: This is a very effective and very popular method. I use grey oil, a modification of Lang's formula (mercury and non-sterilized wool fat), beechwood creosote, camphoric acid and glycerin). Results are most gratifying. The bad results of various clinicians are due to faulty technic. I prefer inunctions as a regular routine and use grey oil only when inunction method fails; in some very stubborn cases I use injections supplemental to inunction with excellent results.

Brain Syphilis

DR. JAMES H. CHESNUTT, Hot Springs: Predisposing causes are trauma, violent strain, mental excitement and alcohol. Symptoms—headache, nausea, vomiting, convulsions, gradual dementia, forgetfulness, complete loss of memory, apathy, delirium, coma and violent insanity; ocular palsy; ptosis; double vision, optic neuritis, blindness. Prognosis is hopeful, and response to treatment may be expected so long as specific changes are present and narrowing of the vessels and atrophy of the brain tissue lacking. However, if one cranial nerve is paralyzed for a year, there is very little hope of recovery from paralysis.

Erythromelalgia

DR. JAMES H. CHESNUTT, Hot Springs, has secured some favorable results from treatment by hydrotherapy, acetosalicylic acid, iron, quinin and strychnin and thyroid extract.

Postanesthetic Acidosis

DR. J. G. EBERLE, Fort Smith: Starving before and underfeeding after anesthesia are exciting causes. I give large amounts of glucose by proctoclysis and hypodermoclysis, and resort to purgation, diaphoresis, enemata of normal salt solution and sodium bicarbonate.

Quinin Anesthesia

DR. HENRY THIBAULT, Scott: All soluble salts of quinin possess anesthetic properties, but I prefer quinin bisulphate. For inflamed tissues I use quinin and urea bihydrochlorid, as described in THE JOURNAL A. M. A., Aug. 8, 1908, April 23, 1910, Oct. 23, 1909.

Preventable Blindness

DR. JOHN G. WATKINS, Little Rock: Out of 193 patients at a state institution, 131 had slight vision, 62 were totally blind, 3 from ophthalmia neonatorum, 36 from trachoma, 23 from various causes. Treatment: Atropin, with insufflations of calomel, nitrate of silver, copper sulphate; hot fomentations for pannus.

Health Conditions in the Delta of the Mississippi Valley

DR. VERNON MACCAMMON, Arkansas City: Artesian wells cause great improvement in health conditions. Pure water may be found at a depth of 550 feet. Pernicious malaria is now very rare. Fatal cases are usually due to home treatment with chill tonics. Typhoid fever is rare and generally mild. Drainage and general sanitation and inhibition of use of surface water contribute to general welfare. Pneumonia is rare and hookworm unknown. Soil is black loam, which is unfavorable to the development of uncinariasis.

Severe Prolapse of Uterus, Modern Methods of Treatment

DR. H. S. CROSSEN, St. Louis: The old-style hysterectomy should be condemned. The inter-position method is indicated, a modification of the vagino-fixation method of Mackenrodt. For non-operative cases I prefer Gehrung's pessary; second choice is Menge's.

Treatment of Pelvic Cellulitis in the Female

DR. R. C. DORR, Batesville: I favor the semilunar incision per vaginam in posterior cul-de-sac under local anesthesia, with insertion of gauze drainage. Palliative treatment comprises administration of salines, hot douches, and either hot or cold applications over abdomen, which ever contributes most to the patient's comfort.

Management of Hookworm

DR. A. E. COX, Helena, treated a family of five two years for anemia, using iron, arsenic, nux vomica, etc., without improvement. Condition was relieved by beta-naphthol and castor oil.

Proceedings of House of Delegates

Among the actions taken by the House of Delegates were the following:

Endorsement was given to the Owen bill for a department of health; to the establishment of a Pasteur institute in Arkansas; and to Dr. Wiley's opposition to benzoate of soda as a food preservative.

The delegates to the American Medical Association were instructed to endeavor to secure a new section on the subject of genitourinary diseases and syphilis.

Laws were advocated to require the registration of births and deaths, and better care of insane persons; and to exempt from prosecution a woman testifying against the physician who induced an abortion on her.

The committee on consolidation of medical schools in Little Rock reported favorable progress and stated that the outlook was hopeful for consummation during the present year. The House of Delegates endorsed the proposition of the Medical Department of the University of Arkansas to turn over to the state its grounds, buildings, outfit, money, etc., in order that it might be made a state institution and managed by a non-partisan board.

AMERICAN GYNECOLOGICAL SOCIETY

Thirty-fifth Annual Meeting, held in Washington, D. C., May 3-5, 1910

(Continued from page 1815)

The Use of Vaccines in Septic and Inflammatory Conditions

DR. E. W. CUSHING, Boston: Vaccines, or killed cultures, act by increasing the resistance of the patient. The opsonic index practically is not of much use in acute conditions. Autogenous vaccines are preferable to stock vaccines, except in certain cases of staphylococcus infection. The best results are obtained in the following order: infection from colon bacillus, pneumococcus, staphylococcus. The results are not satisfactory with streptococcus in rapid virulent infections. In chronic infections and in cases of little virulence streptococcus vaccines give satisfactory results, especially in moderate puerperal cases. Vaccines are not successful in acute gonorrheal infections, but are of much service in gonorrheal arthritis. Vaccines are useful in the following conditions: puerperal infections, abortions, infections of bladder and kidneys, appendicitis, abdominal operations, post-operative pneumonia, and abdominal fistula.

Surgical Treatment of Puerperal Septic Infection

DR. E. E. MONTGOMERY, Philadelphia: The most effective safeguard against the baneful influences of sepsis is the practice of such measures during the parturition and puerperium

as will lessen the opportunities for its production. The suspicion of sepsis confirmed, the course of the surgeon must very often still be a tentative one and largely dependent on the period at which the patient comes under observation. Rarely after the diagnosis is definitely determined is it worth while to resort to the use of the curette. The infective germs rapidly pass beyond the superficial structures, so that curetting is ineffective to limit the progress. The removal of the uterus would not always be adequate, so operative procedure should be delayed until it is evident that there exists such a localization as shall make operation effectual in arresting further baneful progress. The results of serotherapy are not always so satisfactory, as not infrequently its employment has been begun too late, or the virulence of the infection is so marked that the best result to be obtained will be a local manifestation of the poison which will still require resort to the knife for the safety of the patient. Extensive peritoneal exudate entirely surrounding the uterus and fixing it and the appendages may be entirely absorbed and the patient restored with functionating organs by rest, regulation of the diet, moderate depletion, and the judicious use of improvised carbonic-acid baths. The constant course of the surgeon should be one of watchfulness, utilizing every force at his command, to conserve the functions of the patient, yet to proceed unhesitatingly to the most radical measures when such seem necessary to the preservation of life.

When Shall We Operate in Puerperal Sepsis?

DR. JOHN OSBORN POLAK, Brooklyn, N. Y. read a paper with this title, based on a study of 200 consecutive cases, in which he drew the following conclusions:

1. Each case of post-partum or post-abortal infection must be studied individually, and an accurate diagnosis must be made on the clinical, bacteriologic and blood findings, before any treatment is instituted.

2. Nature is competent in the majority of instances to localize and circumscribe the infection.

3. Curettage, douches and examinations during the acute stage break down barriers and open avenues for the further dissemination of sepsis to the myometrium, parametrium and adjacent tissues, and the danger from curettage increases with each month of pregnancy.

4. Enormous pelvic and abdominal exudates may disappear without operation, and that in time enlarged ovaries, tubes, etc., may assume their proper size and function; and further, that so long as the patient's general condition improves, no surgery is advisable.

5. All operations are attended with less risk after the acute stage of the infection has subsided, and that an exact diagnosis is more easily made at this time.

6. After the uterus is thoroughly emptied, the pelvis should be left absolutely alone, and that we should make every effort to support the patient and increase her natural blood resistance.

7. Extraperitoneal drainage of local foci should be elected when possible, either by incision just above Poupart's ligament, or by posterior vaginal section, and when this is impossible, because of an inability to determine the exact anatomic relations of the local foci, an exploratory laparotomy is justifiable in order to make an exact diagnosis and determine on the safest route for drainage.

8. Operative interference in the acute stage of sepsis is only indicated in general purulent peritonitis, post-abortal pelvic peritonitis, infected tumors in or near the genital tract and uterine rupture, when the rupture has occurred in the course of labor and has been handled outside of a well-managed maternity.

9. Thrombophlebitis is a conservative process on the part of Nature to limit the infection, and any form of pelvic manipulation only tends to break down and separate parts of these thrombi, extending the infection to the more remote parts, thus jeopardizing the patient's life.

Surgical Treatment of Puerperal Septic Infection

DR. H. N. VINEBERG, New York: Surgical intervention, if curettage be not included, comes into consideration in only a small percentage of cases of puerperal sepsis. The selection of these is difficult for want of reliable guides, bacteriologic or clinical, as to the course and prognosis of a given case. Hysterectomy is indicated (a) when the uterus contains putrid placental remains that cannot be removed with the finger or curette; (b) when the uterus contains a sloughing fibroid; (c) when the uterus is studded with abscesses; (d) when the uterus has been subjected to severe traumatism and gives evidence of infection. The status of ligation of the pelvic veins in puerperal septic thrombophlebitis is still *sub judice*. The results thus far warrant a further trial with the procedure. In acute puerperal septic peritonitis good results have been obtained by the Germans with multiple incisions and drainage. Perimetric and parametric abscesses should be approached without entering the general peritoneal cavity. In unilateral pyosalpinx or ovarian abscess, the usual median laparotomy incision should be avoided, and instead of it, one should be made over Poupart's ligament or at the outer edge of the rectus, so as to avoid entering the general peritoneal cavity. Although I am an advocate of major surgical intervention in suitable cases, I have had occasion during the past seven years to extirpate the uterus in only six cases. From this it can be inferred that it is only rarely that major surgical intervention is indicated in acute puerperal septic infection. The vast majority of the patients recover under appropriate general treatment and such minor surgery as the exigencies of the given case may call for.

Is Pubiotomy a Justifiable Operation?

DR. J. WHITRIDGE WILLIAMS, Baltimore, based his paper on a series of twenty-five successful cases and drew the following conclusions:

1. In 25 pubiotomies performed at the Johns Hopkins Hospital there were no maternal and 3 fetal deaths, only one of which is attributable to the operation.

2. All patients were delivered by forceps or version immediately after pubiotomy. There were no injuries to the bladder; there were 6 perineal and 5 deep communicating vaginal tears, notwithstanding the fact that 12 of the patients were primiparæ.

3. The relative infrequency of injury to the soft parts is attributed to restricting the operation to suitable grades of pelvic contraction, and to the employment of Doederlein's technic, but particularly to the extensive manual dilatation of the vagina and perineum prior to operating. The occurrence of such injuries may be still further decreased by making horizontal instead of upward traction when delivering the head through the vulva.

4. The after-treatment is not so onerous as is generally stated, and most of the patients suffer but little. Immobilization of the pelvis is not necessary, a four-inch adhesive strip around the trochanters being sufficient. The patients usually move spontaneously in bed between the second and fourth days, get up between the fifteenth and twentieth, and are discharged on the thirtieth day with satisfactory locomotion. Healing generally occurs by fibrous union, so that there is definite motility between the ends of the bone in at least two-thirds of the cases.

5. The maternal mortality should not exceed 2 per cent., provided the operation is performed by competent operators on uninfected women, who have not been exhausted by previous attempts at delivery.

6. It is indicated in contracted pelves when the conjugata vera exceeds 7 centimeters, and after a test of several hours in the second stage of labor has shown that the disproportion cannot be overcome, as well as in certain funnel-shaped pelves.

7. Prophylactic placing of the saw is indicated prior to breech extractions or versions from transverse persentations when it appears problematical whether the head can pass through the pelvis and the bone sawed through immediately after discovering the disproportion.

8. In multiparæ with a history of repeated difficult labors, or in primiparæ presenting excessive disproportion, pubiotomy is inferior to Cesarean section performed at the end of pregnancy or at the onset of labor; otherwise it does not enter into competition with it, as the former is the operation of choice in border-line pelves after the patient has been subjected to the test of labor, and at that time it is many times less dangerous than the classical Cesarean section.

9. In uninfected women it should replace high forceps, prophylactic version, induction of premature labor and craniotomy on the living child. In how far it may compete with suprasymphyseal Cesarean section must be shown by future observations.

10. It should not be employed in infected patients or after failure to deliver by other means. It should be regarded as a primary operation whose dangers are infection, deep tears and hemorrhage.

11. When the separation between the cut ends of the bone does not exceed 4 or 5 centimeters, the patients recover perfectly and are able to walk and work as well as previously.

12. In view of the fact that the bone section usually heals by fibrous union, a certain degree of permanent enlargement of the pelvis may follow, particularly in the transverse diameter of the outlet, and less so in the conjugata vera. Under the influence of the hyperemia incident to a subsequent pregnancy, this may occasionally become markedly exaggerated and be sufficient to permit spontaneous labor. Should this not occur, a second pubiotomy may be performed; while Cesarean section should be limited to those cases in which the pelvic contraction is marked and the child large.

Fibromyomata of the Uterus

DR. I. S. STONE, Washington, D. C., gave his views on the various practical points in connection with the general subject, such as the age of patients, the complications frequently encountered in performing hysterectomy, and the pathologic changes found in the tumors themselves. He reported 160 abdominal hysterectomies; 30 were complete hysterectomies, but the ovaries were not always removed. He thinks the operation at present is nearly as safe as ovariotomy, so far as life-saving goes, but the morbidity is not so low as in the latter operation. The complications resulting from the degen-

erative changes in the tumor, the danger of sepsis from the proximity to the vagina, and the greater exposure of pelvic connective tissue in hysterectomy will always be considered more productive of mischief than the conditions which follow in the wake of ovariotomy. He gave the question of mortality much attention and quoted from the reports of operations in various hospitals to show marked improvement in results during the last decade. The average mortality, he said, is now about 4 per cent., but many operators have obtained a much lower rate.

Total Absence of the Vagina and Uterus; Right Pelvic Kidney; Absence of Left Kidney; Tubes and Ovaries on Both Sides in the Inguinal Canal

DR. THOMAS S. CULLEN, Baltimore: The patient, aged 17, white, came complaining that she had never had menstrual periods. On examination I found total absence of the vagina, but by rectal examination was able to detect a mass filling the right half of the pelvis, which I thought might be the uterus which retained menstrual flow. An incision was made between the bladder and rectum until the mass was reached. It was, however, found to be hard. The abdomen was at once opened and a somewhat irregular mass was found filling the right half of the pelvis. This on its inner aspect had a definite cleft which suggested the pelvis of a kidney. A hand was carried up into the right renal pocket, but no kidney was present at that point. Examination of the left side failed to reveal any left kidney. The mass was evidently a right pelvic kidney. There was no uterus. Half of the right tube emerged from the inguinal canal. The remaining portion of the tube and the corresponding ovary lay in the inguinal canal. A small loop of round ligament was seen emerging from the inguinal canal. On the left side the tube and ovary could not be seen, but could be felt in the inguinal ring. A small portion of the round ligament was discernible.

Dr. Cullen demonstrated a specimen of adenocarcinoma of the Fallopian tube coming from a patient, forty-six years of age. The chief interest in this tube lay in its immense size. It formed a tumor 14x12x10 cm. Near the uterus the tube was normal in size. After it had passed out 5 centimeters, it was 5 centimeters in diameter, and its outer and occluded end was 10 centimeters in diameter. The great distention of the outer end of the tube was in part due to an accompanying hydrosalpinx. The growth was limited almost entirely to the inner surface of the tube. It was of a distinct papillary variety. The left tube was also involved in the carcinomatous process. This was one of the largest carcinomas of the tube on record.

Repair of Inaccessible Vesicovaginal Fistulas Following Hysterectomy

DR. GEORGE GRAY WARD, JR., New York: The important steps which lead to a successful result in the method employed are: (1) The differentiation from a urethral fistula by distention of the bladder with an anilin solution; (2) the employment of deep paravaginal incisions as described by Schuchardt; (3) a longitudinal incision on the anterior vaginal wall from the urethra to the vaginal vault through the fistula and extending into the posterior vaginal wall, and a lateral incision extending the full width of the vaginal vault; (4) the thorough separation of the base of the bladder from the entire anterior vagina and vaginal vault, being careful to commence the dissection in the lower vagina where there is an absence of scar tissue to establish the line of cleavage; (5) evisceration of the bladder into the vagina by means of a sound or similar instrument passed through the urethra; (6) the closure of the opening in the bladder separately from the vaginal incision.

Influence of the Trendelenburg Position on the Quantity of Urine Excreted During Anesthesia

DR. J. WESLEY BOVÉE, Washington, D. C.: Having recently studied 8 cases of ether anesthesia and 8 of chloroform, I believe that the results demonstrate that almost no urine is received in the bladder while the Trendelenburg position is being employed. If it can be concluded that the renal function is greatly lessened while the patient is in the Trendelenburg position, then the dangers of that position are at once appreciated. In renal inefficiency, and in cardiac and arterial lesions, it would seem the use of the Trendelenburg position would introduce a special element of danger and this would be more marked when ether was used than when chloroform was employed as an anesthetic.

Postoperative Treatment of Abdominal Section for Pelvic Disease

DR. BROOKS H. WELLS, New York: Getting the patient out of bed early after operation encourages her, lessens nausea, promotes an earlier return of appetite, increases peristalsis, makes the use of the catheter seldom necessary, makes the bowel movements easier so that there is less necessity for purgatives, improves the respiration, lessens the tendency to pulmonary complications, prevents loss of muscle tone, and greatly facilitates a rapid convalescence. The contraindications are: 1. Shock or general weakness, as expressed in a rapid and weak heart, so that we might fear cardiac failure from the upright position. 2. Cases in which, with a long median incision there has been much tension required in bringing together the fascial edges. 3. In patients who develop septic temperatures or deep wound infections. Of the patients whose cases form the basis of the paper, over 100 have been operated on through a transverse incision, and of these none has developed hernia. Two patients in whom median incisions were used are known to have developed hernia, but neither was allowed out of bed early.

Report of the Committee of the American Gynecological Society on the Present Status of Obstetrical Education in Europe and America

This committee, consisting of Drs. E. B. Cragin, J. C. Edgar, C. M. Green, E. P. Davis, J. W. Williams, J. C. Webster and B. C. Hirst, chairman, recommends that the teaching of obstetrics should occupy at least two years of the medical course, and that those expecting to practice obstetrics should be urged to avail themselves of elective opportunities, and that the number of labor cases personally attended by each undergraduate student should be at least six, under supervision and instruction.

The committee recommends all the known methods of teaching this branch of instruction, namely, didactic lectures, clinical lectures, clinical conferences, ward classes and touch courses, hospital and out-patient instruction, manikin practice in operative obstetrics, and recitations. Of the first three methods the committee recommends specially clinical lectures and conferences. It recommends that ample facilities should be afforded students to make antepartum examinations including inspection, abdominal palpation, pelvimetry, fetometry, vaginal examinations, etc. The committee recommends that a two weeks' hospital residence should be required before the out-patient practice. It is recommended that as obstetrics at present includes pregnancy and parturition, their complications and consequences and the complete recovery of the woman after labor, that obstetric instruction should include the medical and surgical treatment of these conditions. The tendency of obstetrics to become more surgical in practice and to require a surgical training, is evidenced by the fact that in the medical schools of Europe, and in more than one-third of the first fourteen medical colleges of this country, the chairs of obstetrics and gynecology are combined under one head.

On motion, the report of the committee, with its recommendations was adopted.

Cesarean Section for Impassable Contraction Ring

DR. ROBERT L. DICKINSON, Brooklyn, N. Y.: Apart from a consideration of contracted pelvis, or relative disproportion between the passage and passenger, or blockade by scars or tumors, section for impassable contraction ring is warranted when the following conditions are present: (1) Child living and not definitely enfeebled or endangered by the length of labor or by unskilled attempts at extraction; (2) the ring refusing the relax under morphia or complete anesthesia, and

to yield to patient manual dilatation by a skilled obstetrician; (3) mother in fair condition for a laparotomy and not infected; (4) request by patient and husband that a somewhat increased risk to the mother be assumed for the sake of obtaining a living child in lieu of embryotomy. These indications are perfected if at a previous labor in expert hands, this same condition of the contraction ring has caused the loss of a child not unduly large. This holds good whether the ring is in advance of the head or about the neck. The association of a rigid ring with other reasons for section is frequently present.

(To be continued)

AMERICAN ORTHOPEDIC ASSOCIATION

Annual Meeting held in Washington, D. C., May 3-5, 1910

The President, DR. AUGUSTUS THORNDIKE, Boston, in the Chair

President's Address: Our Relations with the Community, Especially with Medical Men

DR. AUGUSTUS THORNDIKE, Boston, urged orthopedic surgeons to take greater interest in the work of other members of the medical profession, and to try by every means in their power to interest other physicians in the work of the orthopedic surgeon.

SYMPOSIUM ON POTT'S DISEASE

Pott's Disease: Causes of Paraplegia and Their Bearing on Treatment

DRS. CHARLES F. PAINTER and GEORGE C. MOORE, Boston, discussed the various causes for the paralysis occurring in the course of Pott's disease, both in theory and as the result of actual observation; the clinical phenomena and the behavior of the cases with and without treatment, including the rationale of treatment. The following conclusions were reached:

Scoliosis occurring in Pott's disease should be regarded, not as a regrettable incident in the course of the disease, but as an evidence of the activity of a tuberculous process. This fact should cause redoubled efforts on the part of the physician to control the underlying disease. So long as this exists, one should be cautious in giving a prognosis as to the cure of the condition. In seeking to relieve this condition, one should be guided by the character of the symptoms and be loath to permit operative interference until further and more convincing evidence has been obtained that surgery can play any part in the cure of these conditions.

Advantages of Braces over Plaster Jackets in Pott's Disease

DR. HENRY O. FEISS, Cleveland: A brace will do all that a jacket can do. Braces can be readjusted to suit changes in size; and they are lighter than the plaster jackets. The parts are accessible, when braces are worn, so that the patient may be bathed. The jacket can be removed by the mother almost as easily as a brace, and the temptation to remove it is greater. The mother should be thoroughly instructed how to adjust the brace, which meets all the mechanical requirements, and is lighter, cleaner, cooler and more scientific than the plaster jacket.

Support for the Spondylitic Spine Obtained by Healing in Steel Bars Attached to the Vertebræ

PROF. FRITZ LANGE, Munich: The kind of metal used is of much importance. In this minor operation, designed to immobilize four or more of the vertebræ, I use steel wires, 5 mm. thick and 10 mm. long, which have been carefully plated with tin. The operation is applicable only in the early stages of the disease, before the appearance of deformity or when the deformity is slight. The wires employed have tin knobs at their upper and lower ends; and a thread is tied under the knobs, to prevent sinking. Provision is also made to fasten the apparatus to the spine. This new operation, I believe, gives the best chance for spondylitis to heal quickly and without great pain.

Discussion on Pott's Disease

DR. NEWTON M. SHAFFER, New York: In Pott's disease in the dorsal area, if we can eliminate the trauma of respiration, we are taking a long step in the right direction. Pott's disease below the respiratory region requires very simple support. The movement of the respiratory area is controlled by Nature and by the patient himself, who makes an effort to limit respiration in the affected area.

DR. S. J. HUNKIN, San Francisco: In a majority of cases, the steel braces can be applied with more efficiency than can the plaster jackets; but a plaster-of-Paris jacket is not heavier than a steel brace, if properly made.

DR. CHARLTON WALLACE, New York: In selecting the treatment for Pott's disease, we must divide the cases according to the stage of the disease. The gist of the whole position is that all orthopedic surgeons are aiming to give the patient the benefit of the best treatment, the main object of which is relief from the superincumbent weight. The non-ambulatory treatment seems to me ideal; but we hate to see children put to bed for several years, so the surgeon tries to get something that will yield proper ambulatory treatment. It is foolish to say that we can absolutely immobilize the spine; therefore, our aim is to get as near to absolute fixation as possible. In the early stages of the disease, when the patients have been taken from bed, nothing can be more advantageous than the plaster jacket, which can be made to weigh no more than a pound or a pound and three-quarters. In patients who are moving around, I do not believe that we can beat plaster-of-Paris. For the convalescent cases, most of us use a brace. Dr. Lange has brought before us a method of treatment which is hazardous, but admirable in the hands of an expert. I should, however, be afraid to try it.

DR. DAVID SILVER, Pittsburg, Pa.: Regarding plaster jackets as opposed to braces, it is merely a question of which we can handle best. The deformity should be corrected during recumbency, and not with the jacket or brace. At the Children's Hospital in Pittsburg, we change the braces ourselves, and do not allow the parents to touch them.

DR. ANSEL G. COOK, Hartford, Conn.: The orthopedist has in these cases a disease to treat and a human being to manage. Sometimes the patient needs the bed; sometimes, fresh air. There are times when the jacket is better, and there are other times when the brace is very much better. The question is, what advantage has either method over other methods.

DR. H. AUGUSTUS WILSON, Philadelphia: No case of Pott's disease has ever been cured by braces or by plaster jackets. Relief from the superincumbent weight is simply one of many means to the end. If recumbency in bed does not interfere too greatly with circulatory activity, then it is essential for a period of time. In many cases, I have seen cure without resort to apparatus. The form of apparatus is of minor importance, but constitutional treatment is of great importance. Whether Dr. Lange's method of getting support of the spinal column without restraint of the respiratory organs or of the body is to be of much use to the ordinary orthopedic surgeon, is questionable.

DR. ROBERT S. LOVETT, Boston: Neither a brace nor a jacket is thoroughly efficient mechanically, although it takes off some of the superincumbent weight. Great as are the objections to the treatment of Pott's disease by recumbency, it is the only efficient surgical treatment for tuberculosis of the spine. In comparing braces and plaster jackets, we are comparing two relatively inefficient methods of treatment.

DR. REGINALD H. SAYRE, New York: I believe that, rather more frequently than Dr. Painter seems to think, the superincumbent weight and bending forward of the spine are factors in the production of these hemiplegias. I do not think that treatment with recumbency, unless supplemented by longitudinal traction or hyperextension, gives adequate support. A jacket without a jury-mast is often a very inefficient means of support. The mast must have a chin support and exert pressure against the anterior part of the neck, to keep the upper part of the body well bent backward. The difficulties in keeping the bones at rest are insuperable. Dr. Lange's method should not be used by anyone who has not very skilful

technic. In suitable cases I believe it would be useful; but in the badly kyphosed cases, I do not know that we should get the support needed.

DR. B. K. MCKENZIE: I think that all these patients, so far as possible, should be treated by recumbency during the active stage of the disease; but if the recumbency has to be in a house, I am not sure that I should choose it in preference to efficient mechanical support with a brace or a jacket. The patient should live out of doors, day and night; and when the sun shines, he should be directly exposed to the sun's rays.

DR. G. G. DAVIS, Buffalo: I have felt for a number of years that our aim should be to progress in the way of shortening the treatment. The main drawback of orthopedic surgery is that the patients are too long under treatment. Dr. Lange has submitted his method as one of the means by which the period of treatment can probably be shortened, and it behooves us to give it a fair trial.

DR. JAMES K. YOUNG, Philadelphia: I think that there is a field for laminectomy in these cases, when the paralysis has existed a year or eighteen months. After that period, if there is no improvement in the symptoms, or if symptoms of abscess can be verified by the *x*-ray, operation should be performed.

DR. ALBERT H. FREIBERG, Cincinnati: Treatment by recumbency is one of the oldest methods in Pott's disease. For some reason, we went away from it; and for some other reason, we seem to be coming back to it. It was observed that, as the first result of putting the patients to bed, they made great improvement. Then, after recumbency had been continued beyond three months, the patients retrograded. We have now learned that something more must be done for the general condition; and we have added to the recumbent treatment, the open-air treatment and the care of the patients' regenerative processes. It is only by a combination of these that such remarkable results have been accomplished. I think that Dr. Lange's method offers great promise for a certain class of patients—those who have Pott's disease in its incipiency. If we delay the application of the splints until the later stages, we shall be applying them when the spine is no longer able to respond by the production of the new bone-tissue in the place of that destroyed by the disease, and shall be depending entirely on the mere splinting for the ultimate result.

DR. EMIL S. GEIST, Minneapolis: What does Dr. Lange do regarding the future growth of the patient? It has struck me that in these incipient cases, which are usually in children, we ought to consider this point, if the steel is to remain attached to the vertebræ.

DR. CHARLES F. PAINTER: Sclerosis is the keynote of the treatment of Pott's disease by laminectomy. It depends on proliferation of connective tissue; if this is inside the pia, it cannot be touched by laminectomy. In cases in which the granulation process has produced the changes outside the dura only, laminectomy will relieve the paralysis. It must not, however, be performed until the process of shrinking of the scar tissue has sufficiently progressed. The paraplegic condition that we cannot touch for two years are not the class of cases that can be relieved at the termination of the two years. The cases that get well do so because the process is outside the dura.

DR. H. O. FEISS: I agree thoroughly with Dr. Lovett that recumbency is the ideal treatment, when it can be carried out. I did not say that the principles of the plaster jackets were wrong, but that they could be carried out more accurately and scientifically by means of braces.

DR. FRITZ LANGE: The operation which I recommend should be carried out as early as possible, since the object is to secure the healing of the process before much destruction of tissue has occurred. I should not, however, hesitate to employ this method in cases in which the disease has progressed farther. In the case in which the longest time, two years, has elapsed since I performed the operation, I have not been able to observe, by means of the *x*-ray that the vertebræ in the part of the spine spanned by the wires are smaller than those immediately above and below the point operated on. Should I observe any interference with the growth of the spine, I should not hesitate to remove the steel wires after the disease has healed.

(*To be continued*)

AMERICAN PEDIATRIC SOCIETY

Annual Meeting, held in Washington, D. C., May 3-5, 1910

(Concluded from page 1890)

The Use of Bacterial Vaccines in Children's Diseases

DR. JOHN M. HOWLAND, New York, and DR. B. R. HOOBLER, New York: This paper is based on cases occurring in the Bellevue Hospital during the last ten months. The infections were the usual ones found in children's hospitals. Unless marked specific results are obtained, conclusions are difficult to draw. There were 31 cases of localized infection with the *Staphylococcus aureus*. They yielded to four or five inoculations of the autogenous vaccine. Of general systemic infections with the staphylococcus there were 3 cases, all of which recovered. The experience with localized infections treated with autogenous vaccines has been very satisfactory. Of streptococcus infection, localized, there were 13 cases, which yielded much less to vaccine treatment than those due to staphylococcus. Of general streptococcus infection, 5 were cases treated. In fifty pneumococcus infections treated with stock pneumococcic vaccine used, we are not able to report any beneficial results nor any unfavorable ones. We are not impressed with the effects of the treatment in vulvovaginitis.

DISCUSSION

DR. F. S. CHURCHILL, Chicago, reported a case of meningitis due to staphylococcus infections, in which an autogenous vaccine was used, followed by speedy recovery.

DR. HENRY KOPLIK, New York, said that in the staphylococcus infection his results agreed with those of Dr. Howland; with the streptococcus infections results had been discouraging.

A Case of Thymic Asthma

DR. A. D. BLACKADER, Montreal: I wish to report a case occurring in a child ten months old, suffering from severe dyspnea. The child was nursed for six and one-half months, then weaned because of the mother having German measles. It had a severe attack of bronchitis, but with no cyanosis; respirations at that time were of a croupy character; no dulness then over area of thymus. Some symptoms of rachitis developed. Then the child apparently caught a fresh cold; breathing was rapid and difficult, but without cyanosis. This condition increased and there was a distinct area of dulness. Operation was proposed to raise the thymus, but the surgeon declined. The child died the following morning. I have been unable to find the report of a similar case. There was a large cystic mass between the trachea and the esophagus. It is believed that it developed from a bronchial cyst.

The First Sound of the Heart in Children

DR. F. FORCHHEIMER, Cincinnati: If one were inclined to believe after so long a time in which the normal heart sounds have been studied there is a concensus of opinion among authors in regard to their production, a review of the literature would be disappointing. The statements of different authors are so much at variance as to seem almost incredible. In connection with the normal first sound of the heart there still exists much difference of opinion, but certain modes of its production are accepted by the majority, many of whom differ as to details. In children the pitch is high, depending on the age and size of the child, from *g* or *a*, soprano, below the staff, gradually becoming lower until it reaches double *b*, soprano, below the staff. The dominant factor in the production of the first sound is the systolic contraction of the myocardium; next to this in importance is the tense auriculoventricular valves; then those vibrations occurring in the large vessels; and lastly, the vibration of the semilunar valves. Instead of only two factors for each side of the heart, four in all, we are forced to accept four for each side, that is, eight as the number of component parts of the first heart sound. In the child heart the conditions are still more complicated; as the organ is slowly developing from the condition immediately after birth to that of adult life, there must be transitional phases, depending on the periods of development; the size of the myocardium as expressed by the ratio of the weight of the heart to the weight of the body is the most

important factor; elasticity of the myocardium must also be considered. Whoever undertakes to make a diagnosis of a heart lesion in a child in an offhand manner immediately stamps himself as a dilettante in heart diseases. The manner of differentiating organic from other valvular bruits in children under three as given by Hochsinger, that under 3 years all bruits in the heart are organic is to be deprecated, although this statement has been widely accepted. In children under 3, functional and accidental bruits are found very commonly. They depend on myocardial conditions. Systolic bruits are found in forms of acute myocarditis due to diphtheria, typhoid, rheumatic fever, variola, gonorrhea and septic pyemia. In chorea the bruit is produced by acute endocarditis. The development of the elastic tissue must be taken into consideration in explaining this bruit; if there is a disparity between the strength of the myocardium and the resistance of the elastic fibers there will result more or less of an inequality in the conus arteriosus, which acts as an obstacle; when the blood passes over this a bruit is produced. That the anemic bruit is produced directly by anemia is a matter of some doubt. In many cases of anemia there is no bruit, and many bruits are attributed to anemia which are due to other causes. It is impossible to diagnosticate anemia by listening to the heart.

DISCUSSION

DR. W. P. NORTHRUP, New York: I wish to emphasize the fact that many murmurs from unexplained causes in children under three do disappear.

DR. S. McC. HAMILL, Philadelphia: I think the explanation offered by Dr. Forchheimer is a valuable one. I have been convinced that there must be more than one etiologic factor for these murmurs, and I am glad to hear Dr. Forchheimer express the view that Hochsinger's statement is incorrect.

DR. F. S. CHURCHILL, Chicago: I once had a case of a child with nephritis who developed an acute arthritis of the knee joint, when a systolic murmur was heard, which gradually disappeared. Blood cultures in this case were negative.

The Value and Limitations of Cold Air in Acute Respiratory Conditions

DR. J. P. CROZER GRIFFITH, Philadelphia: There should be a clear idea of what really constitutes cold-air treatment. It might be used in three ways: first, exposure of the body to cold air; that is not what any of us are doing, because the children are thoroughly wrapped up and the body kept warm; second, breathing of cold air; but the cold air does not enter the lungs as cold air; third, the action of cold air on the face. There is question about the benefit of fresh air, but we must not forget that it is not a new thing by any means. Whooping-cough had been treated that way for many years and also phthisis in adults. The employment of cold air in the treatment of acute respiratory conditions had its limitations, and not every case of such disease is to be exposed to cold air.

DISCUSSION

DR. L. E. LAFETRA, New York: At the Baby's Hospital, in which they have instituted a "cold ward," in which the temperature is kept at about 50 F. from November to April; next to this is a regular ward where the temperature is 70 F.; and in connection with this a steam room for administering vapor inhalations. From the cases that have been treated in the cold ward and in the adjacent warm ward, the following conclusions may be drawn: 1. In the acute congestive stages of inflammations of the upper respiratory tract (rhinitis, laryngitis, bronchitis, especially of the small tubes, with or without bronchial pneumonia) warm, moist air is of greater help than cold dry air. 2. In lobar pneumonia, with high temperature and little or no bronchitis, cold dry air is of great advantage. The same is true of pulmonary tuberculosis and of empyema. 3. After the acute stage has passed, and when there is no inflammatory spasm of the larynx or bronchi, the cold-air treatment is of advantage in cases of rhinitis, laryngitis, bronchitis and bronchial pneumonia.

DR. W. P. NORTHRUP, New York: The essential of the fresh cold-air treatment is partly that it should be circulating, moving air.

DR. E. E. GRAHAM, Philadelphia: From the standpoint of private practice one is soon convinced that unless you get cold air in the sick room you do not get fresh air; the room that is not cold is apt to contain vitiated air.

DR. JOHN HOWLAND, New York: It is almost the invariable experience that children with acute infections do better in cold air than in warm air, and with pneumonia they do better out of doors in winter than in summer. The rise in blood pressure accomplished by putting the patient out doors can only result in benefit in these cases in which fall of blood pressure is a prominent symptom.

DR. A. D. BLACKADER, Montreal: I agree as to the value of increasing blood pressure in the latter stages, but think that in the earlier stages lowering of blood pressure is indicated. I advocate fresh cold air because I feel that the child is getting more oxygen and a certain amount of stimulation to the respiratory center, rather than because of increased blood pressure.

DR. T. S. SOUTHWORTH, New York: I wish to emphasize particularly the advantage of cold fresh air in the prevention of acute respiratory diseases. In our wards the temperature is now kept so low that the faces and hands of the children often looked rather blue and chapped, but acute respiratory infections among them are now very rare.

Retained Intubation Tube; Abductor Paralysis (Diphtheria); Recovery

DR. W. P. NORTHRUP, New York: I wish to present the following unique case: A fifteen months' old boy had been suffering with diphtheritic laryngeal stenosis and wearing intubation tube two weeks; had had whooping-cough 4 months before contracting diphtheria. He came to the hospital with urgent dyspnea and immediate intubation was attempted by the ambulance surgeon. Intubation was unsuccessful, but efforts resulted in relief. When I tried intubation the tube met with obstinate resistance. The smallest tube was gently forced past the obstruction and relief followed. Artificial respiration was immediately necessary. The first diagnosis was catarrhal laryngitis in a larynx recently injured by diphtheria and intubation, a marked nervous element being added from the recent whooping-cough. There was pseudomembrane visible, tonsils very large, coarse râles everywhere over both lungs. Two days after admission respiration was free, but signs of consolidation appeared at one apex. After three days tube was taken out; after brief sleep child choked up and ceased to breathe; with great difficulty tube was reinserted and artificial respiration again used. Quick emergency relief was required a half dozen times in the first few days. He coughed out all the tubes put in; and required intubation 40 times during stay in hospital; increased sizes used. Patient was discharged, but again returned with dyspneic symptoms and is still in the hospital. The secondary dyspnea would seem to have been due to diphtheritic laryngeal paralysis, plus subglottic swelling, complicated with marked nervous spasm.

Bacteriology of the Blood in Early Life

DR. F. S. CHURCHILL, Chicago: Medical literature is replete with reports of the study of the bacteriology of the blood in adults, but few reports have been made of such study in infants and children. In scarlet fever alone has such work been done. Together with Dr. Clarke, I have studied the series of cases reported. The study consisted of 50 examinations on 44 infants and children and the study of 16 cases post-mortem. As blood cultures in adults have yielded information of such scientific interest and value, that there is need of more of this kind of work in the study of diseases of infants and children, as it is reasonable to suppose that blood cultures in early life may be of even more value than in later life.

DISCUSSION

DR. L. EMMETT HOLT, New York: The taking of cultures in the infections of infants has not appealed to me much as a practical procedure, because the difficulties are great and the results not commensurate with the risks.

DR. HENRY KOPLIK, New York: With very young infants I have had the same difficulty as Dr. Holt; it is difficult to get enough blood to make a satisfactory culture, and in these

cases the results have not been as satisfactory as with older children. However, there are some cases in which the results are excellent.

DR. ISAAC A. ABT, Chicago: In the hospitals cultures should be made. I found that they throw a very important light on many conditions. The efficacy of the work depends much on the expertness of the man making the blood culture.

DR. DAVID BOVAIRD, New York: I wish to advocate the taking of blood cultures in children, and as the technic is perfected the same sort of accuracy as now obtained in adults will be gotten in the study of the diseases of children.

DR. DAVID L. EDSALL, Philadelphia: I have come to rely on blood cultures as the most valuable means of diagnosis in obscure conditions of older children. I think it a method of great value.

DR. F. S. CHURCHILL, Chicago: While we do not know a great deal about the subject of the bacteriology of the blood in infants at present, and cannot draw any very definite conclusions, it is important to go ahead with this study and any accurate method that may add to the knowledge of these conditions should be given a thorough trial.

Acute Pericarditis in Children

DR. DAVID BOVAIRD, JR., New York: [This paper consisted largely of charts showing in detail the studies carried out on a series of cases, the first one comprising a series of 14 cases of acute pericarditis in children under the age of 5, at the New York Foundling Hospital, during 8 years.] Acute pericarditis occurs at practically all ages. There is an astonishing prevalence of boys in the list. It is in most cases a secondary affection; secondary particularly to affections of the lung, pleurisy or pneumonia. It complicates bronchopneumonia or lumbar pneumonia without distinction. Of the 14 cases, 11 were purulent. The second chart comprises a series of 17 cases of pericarditis, acute. Twelve out of the 17 were cases of rheumatic fever, and in almost all the type of inflammation was fibrinous or serofibrinous. It is important to recognize pericardial dulness in the fifth right interspace, and especially the progressive increase of this dulness; if the right and left limits of cardiac dulness are outlined, within 12 to 24 hours it is possible to demonstrate any increase of this dulness. Its differentiation from acute dilatation of the heart is of importance. The *x*-ray as now employed is of great value in the diagnosis of these conditions, and it is now possible to make out pericardial effusions with great accuracy by this means, so that the aspirating needle can be used with greater safety. Aspiration at the fifth interspace should be done.

DISCUSSION

DR. HENRY KOPLIK, New York: There is great difficulty making a diagnosis of pericarditis in young infants because of the fact that the heart lies in such a way that the effusion first begins in the posterior superior angle, and unless the fluid approaches 200 c.c. a diagnosis cannot be made. There is danger in aspiration, as the exudate is apt to become encapsulated and partitioned off and one may get into the main sac and pierce the ventricle.

DR. ISAAC A. ABT, Chicago: The great danger of puncture in all these cases is that it is very difficult to differentiate between a serous and a purulent effusion and the so-called acute adhesive pericarditis.

Chylous Ascites in Infants

DR. D. M. COWIE, Ann Arbor: A case was seen a little over a year ago with the following history: Delayed birth; difficulty in labor due to the large abdomen; the abdomen greatly increased in size after birth. *X*-ray showed no tumor; scrotal sac was tense, but gentle taxis could push fluid up into abdominal cavity. Child recovered, though it still has attacks of occasional blueness. It was at first thought that there was a heart lesion of some kind. Orthodiagraph showed the right part of the heart further to the right than normal in a child of that age and size. The right heart was very much enlarged. The case was probably due to some form of congenital heart disease. Analyses of the fluid showed that all the elements of chyle were contained in the fluid.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

Organization in Texas

The following address by Dr. W. B. Russ of San Antonio, Texas, President of the State Medical Association of Texas, was delivered at the forty-second annual session held at Dallas on May 10, 1910. Dr. Russ' address is particularly notable and commendable as a review of conditions previous to reorganization and the changes wrought in the last ten years. With the exception of a few paragraphs regarding purely local conditions, the address is published entire.

Ten years ago the state medical association had enrolled 296 members. Many parts of the state were not represented at all. The association business was transacted by the mass-meeting plan, which meant that many parts of the state had no representation, and that the city in which a meeting happened to be held always had control of affairs. The organization had, after thirty years of existence, failed to secure the enactment of any public health legislation except a practice act, which in some respects was worse than no law at all. The press was antagonistic and the public out of sympathy with the profession. The endorsement of any measure before the legislature by the physicians of the state was a solar-plexus blow to that measure. All public health laws proposed by the association were treated with derision and contempt.

Texas was a land of promise and of profit to magnetic healers, hoodoo doctors, itinerant fakers, universal specialists and fraud doctors of every persuasion. No medical cult was so absurd in its claims, no fraternity of grafters were so brazen in their methods but that their unworthy sons could find a haven of rest in Texas. Many of these, fortified with the legal standing gained in those golden days for quackery and ignorance, remain with us still as unpleasant reminders of the time when the medical ignoramus and the fraud doctor enjoyed a better standing with the press and the public, the politicians and the courts, than did the reputable members of the medical profession.

The enterprising nostrum manufacturer was unhampered by any check. The doctor was the middle-man through whom the manufacturer reached the public with his products, and yet the doctor himself did not and could not, have any information concerning the true nature of the medicines he was assisting in placing before the public, except such information as the proprietor and his agent with the sample-case saw fit to impart. Subsequent developments have shown that in those days many of our most respected manufacturing chemists, in addition to the reputable products offered through the doctor to his patients, also supplied the public, either directly through dummy concerns or indirectly, with the nostrums flagrantly advertised in the lay press, on bill-boards and through the medium of the street faker. The great mass of the medical profession knew nothing about organized medicine and its possibilities, and in many parts of the state were engaged in bitter and senseless feuds, which were a disgrace to the profession and ruinous to the men so engaged.

To-day what a contrast! Our 155 county societies, with a combined enrollment of about 3,100 members, as if by magic, have accomplished wonders. The old mass-meeting has given place to a truly representative plan of government by which every county society has a voice in managing the affairs of the association through a trained delegate of its own selection. The senseless and disastrous bickerings and quarreling of the old days have given place to an era of better understanding between the members of the profession. The great campaign of education carried on by the county and district societies and by our state journal has enabled us to win the confidence and friendship of the press and of the public. The law-makers now are beginning to understand that the State Medical Association of Texas does not ask for class legislation, that it seeks to secure the enactment of only such laws as are clearly in the interest of the public health. The records of the last two legislatures clearly demonstrate this, as the enactment of the following legislation will show:

The medical practice act.
The anatomical act.
The board of health act.
The tuberculosis sanatorium act.
The leprosarium act.
The pure food and drug act.

Not a single one of these laws could be made to serve a narrow or selfish person. They are clearly worthy of our great profession and are in the interest of the people of Texas. Our present practice act forces medical schools to adopt high standards; broadly defines the practice of medicine so as to include every one who treats, or offers to treat, the sick; provides for proper registration; fixes heavy penalties for grossly unprofessional conduct of a character likely to deceive or defraud the public, and has already been hailed as a model law by not less than a dozen other states. Contrast this with the practice act under the old régime, which discriminated in favor of all practitioners, except the members of the regular profession, which placed no restriction on the doctors and healers who did not prescribe drugs and allowed those who happened to hold peculiar views about the administration of drugs to set up their own standards. Yet this law was the only law passed in the old days, and even it was not passed until it had been given the reverse English. Not a single law asked for since our reorganization has failed to pass. . . .

The many activities in which the association is engaged in the great work of carrying out the purposes for which it was organized and for which it exists are well known to you. That its progress and growth are due largely to the influence of our state journal, I am sure you will agree. Under the able and efficient management of our secretary-editor, the *Journal* has, since its organization in 1905, made a determined and successful fight for the elevation of medical school standards for perfection and final passage of all the medical laws we now have on our statute books. It has unified the profession as no other agency could, and without its influence it is doubtful if any of the many reforms for which we take credit could have been accomplished. Our editor is regarded everywhere, in Texas and outside of Texas, as the ablest state journal editor in the country, and the *Journal* is without doubt the best publication of its kind. During the first years of its existence, Dr. Chase donated the use of his private office to the association to be used as journal headquarters, and he has for several years, in quarters entirely inadequate to the needs of his office and at great personal sacrifice, labored day in and day out for the upbuilding of the association. He has steadfastly refused to use the *Journal's* pages to defend himself against villainous attacks of his detractors and has with as much patience as I have ever known a man to display, allowed himself to be misrepresented and hounded by the influences opposed to the policies of the association and to the very existence of its journal. What this work has cost him in dollars and cents alone few men in the profession would have been willing to sacrifice. His path has been a thorny one, but, under every circumstance, he has shown himself to be a man worthy of the love and respect of the profession and deserving well at the hands of the public. Had it not been for the willingness of the secretary, of the trustees, of some of the councilors and others in the profession, to sacrifice both time and money in the service of the association, our finances would have been wrecked long before this and the reforms which we have accomplished would not have been accomplished. This fact is understood and appreciated by most of you. The small pittance that is collected in dues would never have been sufficient to meet the extraordinary expenses incurred in making all the fights we have had to make. No ordinary man would have been willing to make the sacrifices that the trustees and the editor have made. These considerations have no doubt influenced many of the friends of the association to refrain from making complaints, when in their judgment mistakes have been made, and from offering suggestions for possible changes in the methods employed by the men on whom has been placed the responsibility of managing the association's affairs. That criticisms and suggestion, having for their object the upbuilding and improvement of the association, have been needed, and will be needed in the future, every one will admit.

THE OPPOSITION

This, then, brings us to the consideration of a matter to which I desire particularly to direct your attention—a matter which is at present engaging the attention of every state association in the country, and which should interest the members of every county society. A clear understanding of what I am about to lay before you is of vital importance, for, without that understanding, you cannot appreciate the importance of active and hearty cooperation with the men you see fit to place in control of your affairs. If you will but give attention to the facts that I am about to recite, it will not be long before we can meet and thrash out honest differences of opinion fully and freely, and each one of us can fight for what seems to him to be in the interest of the association without the fear of giving comfort to the association's enemies. I refer to the skilfully planned warfare conducted by the stealthy foes of organized medicine, in which are employed the best efforts of many shrewd and experienced business men with unlimited financial backing, into which have been drawn, by one means or another, some through interested motives, some through honest misunderstanding, many of the most brilliant minds in the profession. An understanding of the nature of this campaign waged against the very existence of the Texas State Association and all other state associations will serve the double purpose of explaining why our friends are unwilling to engage in a fight to bring about changes and reforms that seem to them desirable, while confronted with the fear that their names and influences may be used by our foes to assist in poisoning the minds of the public against organized medicine, and, at the same time, will make plain and easy to understand the animus back of the ceaseless tirade of abuse to which every state journal editor, every trustee, officer and committeeman of every association and every house of delegates is treated. You will, then, understand why the Post-Office Department is besieged with demands that second-class mailing privileges be denied the state journals.

To begin with, you no doubt already know that all of the officers of all the state associations are treated to the same kind of abuse month in and month out, and that when the tactics of the enemy change in one state they soon change in other states. You know that the ammunition used against the profession in one state is used all over again in the other states.

You must know, then, that for all this there is a reason. The reason, my friends, is not far to seek:

1. Organized medicine is responsible for the Council on Pharmacy and Chemistry of the American Medical Association, with the resulting exposures of fraud and deceit, not only on the part of the low nostrums advertised in the cheap part of the lay press, but on the part of many, if not most, of our so-called manufacturing chemists, who, unhampered by any check and considering only the dollars to be earned, have for years been exploiting the profession and through the profession the public. The owners of the millions of dollars invested in the proprietary and "patent-medicine" business could not be expected to submit tamely to exposures which place in jeopardy their enormous business interests. They have not submitted tamely; on the contrary, they have by every means known to the shrewd commercial interests sought to destroy the system of organization which makes possible a continuance of these exposures. With this thought in mind, read the bitter attacks on your state association, other state associations and on the American Medical Association.

2. Dozens of medical journals which depend for their support and often their very existence on the protection of the interests that supply the medical profession with antikamnia, and the long list of less conspicuous proprietaries carrying space in medical publications, are assisting in the campaign against the profession to which their owners belong. The editors and proprietors of many of these journals are men of ability, men of standing in the profession, who under ordinary circumstances do not hesitate to wage war against fraud and deceit. According to ordinary business standards, they are not in any sense dishonorable men; journalism with them is a business just as selling groceries is a business. They do not pretend to endorse the claims of the proprietaries advertised in their pages. Their advertising space is for rent; they take the position that their space is for rent just as a room in a hotel is for rent and that they are no more compelled to vouch for the honesty of the claims made by advertisers than are hotel proprietors compelled to vouch for the uprightness of their guests. We do not complain of their use of advertising space in any manner they may see fit, but that they insist on regarding the official organ of the state association, which is used for the purpose of an interchange of ideas between our members and for conducting the association business, in the light of a rival engaged in a private enterprise who adopts unfair methods of competition. The fight is between the private journal interests, which are business enterprises on the one hand, and the association on the other, because this body finds it necessary to publish a journal as a part of a scheme for carrying on its benevolent purposes, and which representing organized medicine finds it necessary to wage war on the commercial interests that are imposing on the medical profession, and through the profession on the public.

It is unfortunate that the association cannot conduct a campaign of education which happens to affect the manufacturer of proprietary medicines without treading on the toes of our friends who are engaged in medical journalism as a private business.

3. The influence of organized medicine is responsible for the campaign of education which resulted in the enactment of the national pure food and drug law and has assisted in its enforcement. Here again great wealth is forced into a fight against the medical profession. The enemies of the pure food and drug law find it expedient to join our other enemies.

4. Low-grade medical schools, and all the many powerful interests linked with their interests, are fighting organized medicine because of the successful fight that the profession is making to elevate medical college standards. This, of course, means the ultimate elimination of low-grade schools and such a policy is naturally very objectionable to the doctors who run medical schools for their own interests rather than in the interest of the public and the profession.

5. All of the "isms" and "pathies" in medicine, and all of the freak cults, are slowly but surely being eliminated by the adoption of uniform standards for all who seek license to practice medicine, and by laws which so broadly define medicine as to include all who treat the sick for a consideration. As long as freak schools and sectarians are allowed to assume the rôle of martyrs, persecuted by the medical profession for righteousness' sake, and can secure laws under which they may legally define the practice of medicine to suit themselves and can set up their own standards, they will continue to multiply and prosper and new "treatments" with coin enticing names will rise up for the benefit of the crank, the bunco man, and the doctor who cannot make a living at legitimate practice.

6. Organized medicine in Texas is responsible for a law which not only makes it a crime for an ignorant person to assume the responsibility of treating the sick for any ailment, mental or physical, by any method or system whatever, but also makes it a crime to be guilty of "grossly unprofessional or dishonorable conduct of a character likely to deceive or defraud the public," and the penalty is a fine, a jail sentence, and a loss of license. This clause of the practice act was recently invoked in the case of a notorious advertising quack who was tried at San Antonio and had his license revoked. Ever since then he has devoted most of his time in denouncing the medical "trust" and has declared war to the death of the octopus. He delivers a free lecture from every convenient platform and offers his services to all who would kill the great trust dragon which has seen fit to interfere with his right to rob the thin purses of the poor and the ignorant. This recent addition to the anti-organizing crusaders has amassed a snug fortune by taking large fees, often more than $100 at a time, from unfortunates whom he has been able to attract to his lair with the assistance of the press by causing them to pass, with the aid of an olive oil mixture, soap concretions, which his victims are made to believe are gall-stones.

7. Add to these, the usual complement of disgruntled brethren who for one reason or another are always "agin the government" on general principles, the man who thinks that all the reforms in the world are not worth the two dollars a year he is required to pay for membership fee; also the man who does not want to belong to the association and who is against it because it is not what it used to be when he was a boy.

With such an army arrayed against the profession, and in the face of the fact that the men who are elected to manage the association affairs do so at great personal sacrifice without any hope of personal reward, the well-wisher of the association is, as a rule, loath even to suggest reforms which, in his judgment, are needed, for fear of discouraging the men in control of the association affairs and giving comfort to the enemy. The allies are ever on the lookout for recruits. At the earliest signs of dissatisfaction with any of the association officers, or of its policies, the mind-poisoning squad begins to spread the glad tidings that something has gone wrong with the association; that a big split is about to take place; that the sore-head is about to come into his own; that perhaps somebody has been grafting from that two dollars collected for dues. Then the independent journal begins to beat the tom-tom, the proprietary medicine interests commence to delve into the past of the men who have been exposing their frauds. The magnetic healer begins to work on his dynamo and the man who does not like the editor anyhow takes down his snickersnee, and the whole army marches out to engage in the battle.

The profession as a whole understands the nature of this warfare. Never before has the profession been so united as it is to-day. Never have the parasites which feed on the doctor and make him the middle man for reaching the public with dishonest and misbranded proprietary medicines been at so great a disadvantage as now. Never before have the doctors so clearly understood the Dr. Jekyll and Mr. Hyde part played by our large manufacturing concerns. Never have the public been so willing to assist in the enactment and enforcement of laws in the interest of public health. Never have the "schools" of medicine, the quacks and the medical bunco-steerers had so many things to worry about.

The end of this great fight against the medical profession is in sight. The great interests whose business it is to manufacture medicines are adjusting their affairs so as to meet the honest requirements of the Council on Pharmacy and Chemistry and in a short time they will have no reason to continue a fight against honesty in the scale of proprietaries. Hight standards of requirements are eliminating the low-grade medical schools and putting out of business the "isms" and "pathies" in medicine. The public is being rapidly educated and assisting in this great work. The independent medical journals that are worthy to live because of real merit will continue to prosper. Those that cannot live without the support of dishonest advertising houses must go out of business or else improve themselves so that they will be worthy to live.

Your understanding of the nature of the fight that has been waged against the profession will forever put an end to that fight, and your active interest in association affairs will make possible the accomplishment to the fullest extent of the purposes for which the organization exists.

Societies Endorse Owen Bill

The following organizations have passed resolutions endorsing the principles of the Owen bill: Santa Clara (Cal.) County Medical Society, Humboldt County (Cal.) Medical Society, Woodbury County (Ia.) Medical Society, Buncombe County (N. C.) Medical Society, State Medical Association of Texas, Oklahoma State Medical Association, Lamar County (Tex.) Medical Society, Georgia State Medical Association, St. Joseph-Buchanan-Andrew Counties (Mo.) Medical Society, Portland City and County (Ore.) Medical Society, Medical and Chirurgical Faculty of Maryland, Denison County (Tex.) Medical Society, Cincinnati Civic League, Chamber of Commerce, Tacoma; Wash., Board of Trade, Tacoma, Wash., Tacoma Commercial Club, Tacoma, Wash., Mississippi State Department of Health, Madison County (Wis.) Medical Society, Missouri Association for the Relief and Control of Tuberculosis, Rock Island (Ill.) County Medical Society, Essex North District (Mass.) Medical Society, Southwestern Kentucky Medical Association, Wright County (Ia.) Medical Society, Washington County (Pa.) Medical Society, Medical Society of the County of Kings (N. Y.), Sheridan, Mont., Board of Trade, Robertson County (Tenn.) Medical Society, Lorain, O., Chamber of Commerce and Board of Health, Lorain (O.) Medical Society, Huntingdon County (Pa.) Medical Society, Medical Society of the County of Cortland (N. Y.), Cortland Board of Trade, Southeastern New Mexico Medical Association, Missouri State Medical Association, School Improvement Association of Helena, Ark., Houston-Fillmore Counties (Minn.) Medical Society, Marquette County (Mich.) Medical Society, Stevens County (Minn.) Medical Society, Harrison County (Ia.) Medical Society, Clarkesville, Tex., Citizens' Meeting, Barbour-Randolph-Tucker Counties (W. Va.) Medical Association, Labette County (Kans.) Medical Society, Conference of the Methodist Episcopal Church of the State, held at Asheville, N. C., Burleson County (Tex.) Medical Society, Somerset County (Pa.) Medical Society, Martin County (N. C.) Medical Society, Louisiana State Medical Society, Franklin County (O.) Medical Society, Association of the Officers of the County Medical Societies of Washington, Ottawa County (Mich.) Medical Society, Green Lake County (Wis.) Medical Society, Central Kentucky Medical Society, Anderson County (Tenn.) Medical Society, Aiken County (S. C.) Medical Society, Edwards County (Ill.) Medical Society, the Associated Chambers of Commerce of Orange County, Cal., Orange County (Cal.) Medical Society, Franklin County (Vt.) Medical Society.

Medicolegal

Rights Between Carrier and Person Requiring Medical Attention

The Supreme Judicial Court of Massachusetts says that the case of Connors vs. Cunard Steamship Company (90 N. E. R. 601) presented an important question not directly decided in any case which has come to the court's attention. The suit was brought by Alice Connors, as administratrix of Margaret Connors, deceased. The two sisters had embarked on the Ivernia, having a ticket entitling them to a second cabin passage from Boston to Queenstown (or Liverpool). But Margaret undressed and went to bed before the vessel cast off from the wharf, which was reported to the ship's surgeon, who went to her room, felt her pulse, looked at her tongue and asked what was the matter. Thereupon Alice handed him a letter from a physician, addressed to the ship surgeon, saying: "May I explain to you a most sad case which will be under your care during this crossing? The patient herself has no idea of the nature of her trouble, so will you kindly make light of anything ocurring and give us your aid in concealing facts? This note will be handed to you by her sister, who knows all. She has endothelioma of uterus too advanced for more than curetting and cautery, which I did February 13 [letter dated 27th]. Unfortunately this is her week to expect menstruation, but I trust it will give you no special trouble. She will be supplied with creolin for douches and codelia suppos. (ov grs. 1ss) for pain if needed. May I suggest an early vaginal pack should the loss of blood pass the normal that strength may be saved until she reaches home?" After reading the letter, the surgeon left the room and gave directions that the woman should not be allowed to proceed on the voyage. The court is of the opinion that this was justifiable, under the circumstances.

The general rule that a common carrier is bound to accept anybody and everybody who presents himself for transportation and pays the regular fare, the court says, has its limitations. A common carrier is bound to care for all who have become its passengers. For that reason not only is it not bound to accept, but it is under obligation to refuse to accept as a passenger an insane person without a proper attendant or attendants, or one who has smallpox. It was held in cases cited that the justification was made out if the carrier had reasonable cause to suppose, and did suppose, that the safety or convenience of other passengers would be endangered by the person in question, and that it was not necessary to wait to see if the person believed, and with reason, to be afflicted with an infectious disease or so insane, drunk, or sick as to be likely to interfere with the safety or the convenience or both of other passengers, was or was not in fact in the condition he appeared to be in.

This doctrine was admitted by council in this case, but with the contention that the right of the carrier to exclude a person who wishes to become a passenger is confined to those cases where the safety or convenience of other passengers is endangered, or thought to be so, and that the mere fact that a person is afflicted with an internal disease will not justify a carrier in refusing to accept him as a passenger if he offers to pay his regular fare. However, the court thinks it plain that the right to exclude is not confined to cases where the safety or convenience of other passengers is endangered, or thought to be endangered.

The question of accepting as a passenger a person in need of medical attention is a more serious one in case of a carrier by water than in case the proposed transportation is on land. Hospitals abound on shore, and even where there are no hospitals physicians and surgeons can be found at different stopping places to whose care the traveler in need of medical attendance can be confided. But in case a person in need of medical attendance is taken as a passenger on a sea voyage she must be cared for until the voyage is at an end, and if she is not accompanied by her own physician it might well be held that the responsibility of caring for her had been assumed by the carrier.

The court is of opinion that a common carrier is bound to take as passengers all who offer themselves, ill or well, provided the carrier can furnish the necessary accommodations and the passenger is willing to pay for what he demands. But where a person who is ill presents herself to a common carrier for transportation by water it is her duty to state the fact that she is ill and make special arrangements for her transportation as a person in need of medical attention.

The case of a person requiring medical attendance does not come within the same class as the cases (put in some of the opinions) where a very old or a very young person is alighting from a car and for that or any other reason requires more time than a person in good health and not under a disability. Those persons and persons laboring under other difficulties are included in persons fit to travel. What was to be considered here was the case of one not fit to travel without medical attention. Had notice been given to the defendant corporation of the condition of this woman when her ticket was bought for her the question of what care her physical condition was likely to demand and how and by whom it was to be provided could have been taken up with deliberation and some special arrangement made for the necessary extra care and the amount to be paid to the company if it was arranged that the extra care was to be furnished by it.

The court is of the opinion that the presentation of the letter was a representation by the woman that she needed medical attention during the voyage and looked to the company to supply it. If after the visit which the ship's surgeon paid to her while she was lying in bed in her rooms she had not been put ashore there would have been a serious question whether the company had not assumed the responsibility of giving her proper medical care during the voyage.

A ship's surgeon seems to have been aboard the Ivernia in compliance with the English statute which requires every passenger ship to carry a duly qualified medical practitioner whenever the number of persons on board exceeds 300. It may be assumed that a passenger who falls ill during the voyage can call on the "medical practitioner" for medical attention. But neither the statute, nor the presence on the Ivernia of a "medical practitioner" in compliance with that act, changes the right of a common carrier by water not to receive as an ordinary passenger a person in need of medical atention. In the court's opinion a carrier has that right.

Points from Decision in Favor of Physician Charged with Assault with Intent to Commit Rape

The Supreme Court of Iowa says, among other things, in its decision in the case of State vs. Sells, which it characterizes as unusual in many of its features, that, under the statutes of that state, to sustain a verdict of guilty the testimony of the prosecuting witness must be corroborated by other evidence from some other and independent source, tending to connect the defendant with the commission of the offense. But when the offense was charged to have been committed in his own home or office where he had an undoubted right to be, and in a room or place where he was accustomed to meet visitors or transact business with patrons on one of whom the assault was charged to have been made, no possible sinister significance could be given to the mere fact of his presence there, and the corroboration which would satisfy the requirement of the law in such case ought to be more direct and satisfactory than would be held sufficient were he a trespasser or an intruder.

Taking the tendency of the evidence on both sides to show that, at the time of the visit when the commission of the offense was charged, the prosecutrix became for a time unconscious or delirious, with other circumstances, it seems not an unreasonable theory that she was the victim of an hallucination by which the vagaries of an abnormal and distorted imagination had been impressed on her mind as the memory of an actual experience.

It is unfortunately true that such an accusation, however false, especially when made against a professional man whose business calls him into frequent dealing and association with

women, is always injurious and often ruinous to him against whom it is directed. So true is this that physicians of the very highest character have sometimes been led to submit to imposition and to compromise with their accusers rather than take the chances of irretrievable injury from public attack on their personal or professional reputation. That the defendant showed signs of anxiety over the story imperiling his good name and should seek the young woman and her friends, and, while asserting his innocence, ask if there were not some way in which the matter could be fixed and the scandal suppressed, might not argue very well for his judgment, but it was just as consistent with the theory of innocence as with that of guilt.

It should also be said in this defendant's behalf that, so far at least as appeared from the surface, he had taken reasonable precaution to protect both himself and his female patients from liability to scandal of this nature. His profession is an honorable one, and one which brings its votaries into the closest and most intimate relations with their clientage. That he had established a hospital in which to receive and treat patients was certainly not to his discredit. He had employed a woman nurse as an attendant in the hospital who had access to its various rooms and departments, and assisted him in the care and treatment of those coming to employ his services. More than this could hardly be expected of a physician practicing in a small country town. Whether both he and the nurse were present at the visits of the prosecutrix was a disputed question, but the arrangement of the building, the employment of the nurse therein, her general duties about the premises, the coming every day of from ten to twenty or more patients who had entrance to the building and were treated therein reduced the probability that rape or assault with such intent could have been committed therein in the manner claimed by the state.

Ordinarily where a case is to be remanded for a second trial this court does not express any opinion on the testimony, but it suggests in this case that, if the state finds itself unable to offer other or additional or further proof in support of the indictment, it will be advisable for the prosecution to enter a dismissal.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York

May 28

1 Acute, Subacute and Chronic Infection of the Kidneys and of Other Organs by the Bacillus Coli. W. H. Thomson, New York.
2 Limitations of Caloric Method of Infant Feeding. H. D. Chapin, New York.
3 The Economics of State Care of the Insane. A. W. Ferris, New York.
4 Some Facts the General Practitioner Should Know Regarding the Treatment and Care of the Insane. W. Mabon, New York.
5 Non-detention an All-important Factor in the Treatment of the Drink Habit. C. A. Rosenwasser, New York.
6 Strychnin in Pneumonia of the Aged. W. F. Waugh, Chicago.
7 Cerebellar Ataxia. C. Rosenheck, New York.
8 Therapeutic Possibilities of the Juice of the Fresh Pineapple. B. G. R. Williams, Paris, Ill.

Boston Medical and Surgical Journal

May 26

9 *The Cause of Gastroptosis and Enteroptosis, with Their Possible Importance as a Causative Factor in the Rheumatoid Diseases. J. E. Goldthwait and L. T. Brown, Boston.
10 Present Status of the Antituberculosis Campaign in Massachusetts. J. B. Hawes, Boston.
11 Cesarean Section in Placenta Prævia and Puerperal Eclampsia. R. H. Gilpatrick, Boston.
12 Nuclear Classification of the Neutrophile Leucocytes and its Relation to Disease. S. H. Kagan, Boston.

9. **Cause of Gastroptosis and Enteroptosis.**—This is a preliminary report of the work that has been carried on by Goldthwait and Brown in the hope of finding the real cause of the chronic joint diseases commonly designated as rheumatoid arthritis, osteoarthritis, arthritis deformans, chronic rheumatism, etc.

New York Medical Journal

May 28

13 Comets and Plague—Gallieo and his Sphygmograph. J. Knott, Dublin, Ireland.
14 The Influence of Alcohol on Trauma. F. S. Dennis, New York.
15 Some Anomalies of the Sigmoid. L. L. McArthur, Chicago.
16 Modern Methods in Pancreatic Diagnosis. W. G. Lyle, New York.
17 Selenium. A. Rose, New York.
18 Fibromyomata Uteri. A. Samuels, Baltimore.
19 Ministering Women. C. E. Nammack, New York.
20 The Animal Parasites Found in the Intestines of Native Children in the Philippines. I. W. Brewer, Samar, P. I.
21 Serodiagnosis of Syphilis (continued.) V. C. Pedersen, New York.

Lancet-Clinic, Cincinnati

May 14

22 Practical Points on the Anatomy and Physiology of the Nose: Special Reference to Acute Affections of the Nasal Accessory Sinuses. D. T. Vail, Cincinnati.
23 The Therapeutic Application of the Low Protein Ration. J. H. Kellogg, Battle Creek, Mich.
24 *Teaching Ophthalmology. A. R. Baker, Cleveland.
25 The Choice of a Microscope. C. Goosman, Cincinnati.

24. Abstracted in THE JOURNAL, April 16, 1910, p. 1333.

Northwestern Lancet, Minneapolis

May 15

26 Management of the Third Stage of Labor. F. L. Adair, Minneapolis.
27 *The Metabolism and Modern Treatment of Diabetes. F. S. Bissell, Minneapolis.
28 How Not to Request the Examination of a Public Water Supply. H. A. Whittaker, Minneapolis.
29 Sewerage and Water Supply. J. C. Boehm, St. Cloud, Minn.

27. **Metabolism and Modern Treatment of Diabetes.**—Bissell emphasizes that a patient with diabetes requires exactly the same amount of food that is required by a normal individual under the same conditions, usually about 35 to 40 calories per kilogram. In no case should a sudden and radical change be made from one diet to another, but, on the contrary, one should proceed carefully and determine as nearly as possible the tolerance of the patient for carbohydrates. This not only makes it possible to properly classify each case, but in great measure, makes the prognosis. The procedure followed by Bissell is to add to the standard diet 100 gm. of wheat bread and see what happens. He says that if less than 50 gm. of sugar appears in the urine, withdraw carbohydrates and see if sugar disappears. If more than 50 gm. appears, do not withdraw carbohydrates from the diet, but give on the second day 75.0 wheat bread, on the third day 50.0, and on the fourth 25.0. Then if no diacetic acid or acetone has appeared, withdraw entirely. If sugar disappears from the urine we know we are dealing with a mild form of diabetes. If, on the other hand, sugar persists in the urine on a carbohydrate-free diet but disappears when albumen is given in as large a quantity as 600 grams per day, the case is one of medium severity. The severest type of case is manifested by the persistence of sugar even under starvation treatment.

Doubtless an inheritance from an earlier conception of this disease, the practice still prevails in many quarters of placing every diabetic on the standard carbohydrate-free diet regardless of his power of sugar combustion or tissue requirement. The patient either frankly rebels, surreptitiously resorts to the food which his tissues crave, commits suicide, or develops acidosis.

It is the essential object of Bissell's paper to emphasize the necessity of determining the boundary of sugar assimilation in each case before beginning treatment. Having determined the point and the caloric requirement of the individual the selection of a diet is quite simple, if certain changes are borne in mind.

Medical Fortnightly, St. Louis

May 10

30 Touring the Lands where Medical Science Evolved. R. G. Eccles, Brooklyn.
31 Action of the Ions Produced by Radium. H. Robarts, St. Louis.

Ophthalmic Record, Chicago

May

32 A One Degree Astigmatism Scale. J. N. Rhoads, Philadelphia
33 Cataract Absorption. A. M. MacWhinnie, Seattle.
34 A New Forceps for the Removal of the Anterior Lens Capsule. F. Tooke, Montreal.

American Journal of Obstetrics and Diseases of Women and Children, York, Pa.

May

35 Is Publotomy a Justifiable Operation? J. W. Williams, Baltimore.
36 *Dysmenorrhea in Nulliparous Women without Gross Local Pathologic Lesions. C. C. Norris and E. P. Barnard, Philadelphia.
37 Effect of Animal Extracts on Uterine Contractions. I. Ott and J. C. Scott, Philadelphia.
38 Functional Disorders of the Bladder in the Female Simulating Cystitis. A. Stein, New York.
39 The Rectum and Bowel in their Relation to Pelvic Diseases. J. Brettauer, New York.
40 Thirty-five Pound Uterine Fibroid Complicated by Umbilical Hernia. H. A. Royster, Raleigh, N. C.
41 Three Unusual Cases of Meningitis. E. V. Davis, Chicago.
42 Acute Otitis Media from Pediatric Viewpoint. J. P. Pendleton, Brooklyn.
43 Heart Disease in Infancy and Childhood. D. R. Reilly and A. D. Smith, Brooklyn, N. Y.
44 Vaccine Treatment of Gonococcus Vulvovaginitis in Out-Patient Children. B. W. Hamilton, New York.

36. Dysmenorrhea in Nulliparous Women.—The statistics for this paper have been drawn from 73 cases operated on during the last eleven years. Of these 73 cases Norris and Barnard have been able to trace 40. Cured, 18, or 45 per cent.; improved or temporarily cured, 11, or 27.5 per cent.; not improved, 11, or 27.5 per cent. The results of the various operations are as follows: Dilatation and curettage performed 28 times: Cured, 11, or 39.28 per cent.; improved or temporarily cured, 11, or 39.28 per cent.; not improved, 6, or 21.42 per cent. Dilatation and curettage and Wylie's drain performed nine times: Cured, 6, or 66.66 per cent.; improved or temporarily cured, 1, or 11.11 per cent.; not improved, 2, or 22.22 per cent. Dudley's operation performed once: cured, none; improved or temporarily cured, none; not improved, 1, or 100 per cent. Dudley's operation combined with Wylie's drain performed four times: Cured, 2, or 50 per cent. In two of the 40 cases no record as to the character of the dysmenorrhea was obtainable. The remaining 38 cases, arranged according to the character of the dysmenorrhea, without regard to the operation performed, give the following results:

Ten cases of digestive dysmenorrhea: cured, none; improved or temporarily cured, 2, or 20 per cent.; not improved, 8, or 80 per cent. Eleven cases of spasmatic or expulsive dysmenorrhea: cured, 9, or 81.81 per cent.; improved or temporarily cured, 2, or 18.18 per cent.; not improved, none. Seven cases in which the symptoms were a combination of the spasmatic and congestive types: cured, 3, or 42.85 per cent.; improved or temporarily cured, 1, or 14.28 per cent.; not improved, 3, or 42.85 per cent.

These tables are most striking. When we find that in one type of dysmenorrhea we can cure by operation 81 per cent., while in another we can obtain no absolute cure, and only 20 per cent. of improvements, the necessity of recognizing the character of the dysmenorrhea becomes apparent. Careful diagnosis as to the etiologic factor producing the dysmenorrhea is, in the authors' opinion, the key to the success in the treatment of this condition. Of the above 40 cases 20 were married, 14 had been married for two years without issue. Of these 14 previously sterile cases, 5, or 35.71 per cent., became pregnant within one year following the operation. Two cases of dilatation and curettage had the operation repeated and both were temporarily improved; one patient had a hysterectomy performed and was cured; one had a bilateral oöphorectomy performed and was cured; one case of an unmarried girl who had a dilatation and curettage performed without any relief, about a year after the operation married and became pregnant. The dysmenorrhea was cured by labor. One case was temporarily improved by dilatation and curettage; the menopause appeared four months after operation.

New Orleans Medical and Surgical Journal

May

45 Shortening of Umbilical Cord from Coiling Around Fetal Neck. J. P. Elmore, Edgard, La.
46 Laryngeal Tuberculosis: Some Points of Interest to the Family Physician. A. I. Weil, New Orleans.
47 Ophthalmia Neonatorum: Etiology, Pathology and Processes Causing Blindness. R. W. Salter, New Orleans.
48 The Occurrence of Several Cases of Juvenile Cataract in One Family. E. A. Robin, New Orleans.
49 Prevalence of Ophthalmia Neonatorum. M. Feingold, New Orleans.
50 Treatment of Ophthalmia Neonatorum. E. A. Robin, New Orleans.
51 Ophthalmia Neonatorum: Prophylaxis. H. D. Bruns, New Orleans.

University of Pennsylvania Medical Bulletin, Philadelphia

May

52 *Pancreatic Cyst. B. C. Hirst and B. S. Veeder, Philadelphia.
53 Preventive Measures Against Infectious Disease. A. J. Smith, Philadelphia.
54 Chronic Intestinal Indigestion in Children. M. Ostheimer, Philadelphia.
55 Primary Dysmenorrhea: Its Etiology and Treatment by Forcible Dilatation of the Cervical Canal and Application of the Wylie Drain. H. D. Beyea, Philadelphia.
56 The Medical Side of Benjamin Franklin. W. Pepper, Philadelphia.

52. Pancreatic Cyst.—The patient had noticed a lump in the abdomen, which did not give rise to any symptoms until five days before admission, when she was seized with a sudden sharp colicky pain in the abdomen, in the region of the mass. This lasted a short time, then subsided, and returned after a day and a half. Examination showed a large slightly movable, spherical tumor, situated high in the abdominal cavity and not involving the uterus. Urine and blood examinations negative. The tumor was supposed to be an ovarian cyst on a long pedicle, which had twisted, causing the pain. On opening the abdomen, the tumor was found to be in the lesser peritoneal cavity, and proved to be a large cyst about the size of a grape fruit, free from adhesions except at its pedicle, which consisted of the head of the pancreas. The cyst was dissected out, it being necessary to cut through the pancreatic tissue of the pedicle. Every possible bleeding point was ligated with catgut, the opening into the lesser peritoneal cavity was closed with catgut and the abdomen closed with drainage. Convalescence was rapid, afebrile, and uncomplicated, patient leaving the hospital two and a half weeks after operation. There were no digestive disturbances or abnormalities in bowel action at any time.

The noteworthy features in this case are the extremely successful result following the uncommon operation of total extirpation; the proof of its being true pancreatic cyst by the presence of pancreatic tissue in the wall of the cyst; and the presence of large quantities of mucin and two enzymes—diastatic and emulsifying—in the cystic contents.

Journal Missouri State Medical Association, St. Louis

May

57 Late Observations on Fecal Examination. J. W. Ousley, Kansas City.
58 Placenta Prævia. R. T. Henderson, Jackson.
59 The Prophylaxis of Typhoid. A. F. Willie, Springfield.
60 The Regular Profession and the Isms. H. J. Rowe, Willard Springs.
61 The Gynecologist of To-Day. W. B. Dorsett, St. Louis.
62 Appendicitis, Diagnosis and Treatment. G. A. Dalamatar, Rich Hill.
63 Lobar Pneumonia. W. S. Love, Bertrand.
64 Our County Society. G. W. Hawkins, Sallsbury.
65 Thyroid Instability. A. L. Cambre, Atlanta.

Annals of Surgery, Philadelphia

May

66 *The Relation of Trauma to Cancer Formation. C. Phelps, New York.
67 *Skeletal Carcinomatosis. G. W. Hawley, Bridgeport, Conn.
68 A Tourniquet for the Control of Hemorrhage from the Scalp During Osteoplastic Resection of the Skull. A. C. Wood, Philadelphia.
69 *The Pathology of the Gall-Bladder and Some Associated Lesions. W. C. MacCarty, Rochester, Minn.
70 Pancreatic Hemorrhage and Acute Pancreatitis. J. Ransohoff, Cincinnati.
71 Retroperitoneal Hernia of the Pericecal Type. A. C. Matthews, Poughkeepsie, N. Y.
72 *An Operation for Umbilical Hernia. H. A. Kelly, Baltimore.
73 The Diagnosis of Typhoid Perforation. A. D. Whiting, Philadelphia.
74 Treatment of Chronic Tuberculous Sinuses by Beck's Bismuth-Vaselin Paste Injections. J. S. Shober, Philadelphia.

66. Relation of Trauma to Cancer.—From a general observation of cases and from a comparative study of discordant statistics Phelps concludes that cancer is primarily dependent on a cause which is congenital, is hereditary in a certain proportion of cases, and is as inexplicable as the force which determines *ab avo* the future sex and peculiarities of the individual. Its development is favored by various indeterminate and nonessential conditions and is not due to trauma unless oft repeated. Its proximate cause is as yet entirely unknown, and

its future determination will depend on the possible verification of a parasitic infection. These propositions are supported by the frequent occurrence of the disease in persons who are still in early or middle life, without hereditary predisposition, and in absolutely normal and mental equilibrium; and this in the absence of any of the accepted favoring condition.

67. **Skeletal Carcinomatosis.**—In Hawley's case an accident (spontaneous fracture), not frequently occurring in carcinoma of bone, led to the discovery of bone disease, and the history of breast cancer gave a clue to its probable nature. About one year after amputation for cancer, the patient's left leg gave way in the right thigh. Swelling about the hip followed the injury to both legs. Further skeletal examination revealed a moderate total lateral curvature of the spine to the right; tenderness over the third and fourth lumbar vertebræ, and over the seventh and eighth ribs on left side, and under the pressure of the examining finger the seventh rib caved in with the feeling of crepitus. Radiographs showed a fracture of the left femur about 4 inches below the trochanter, with considerable callus formation, overriding and angulation, also irregular areas of osteoporosis in the shaft and neck. The radiograph of the right hip showed a fracture just below the trochanter with the fragments united at a right angle; also honeycombing of the shaft, neck and trochanter. Other exposures made revealed similar areas of softening in both fibulæ and two ribs.

69. **Pathology of the Gall-Bladder.**—As the result of clinical and pathologic study of 365 cases of cholecystectomy, MacCarty concludes that the lesions in the gall-bladder are not definite entities, but degrees in a process of reaction to irritants. He divides these lesions into eight groups as follows: (1) *Cholecystitis catarrhalis acuta:* 65 uncomplicated cases and 90 cases complicated by other stages. Forty-five (69 per cent.) of the uncomplicated cases were associated with gall-stones; (2) *cholecystitis catarrhalis chronica:* 39 uncomplicated cases and 39 cases associated with other types of inflammatory reaction, 30 (76 per cent.) of the uncomplicated cases contained stones; (3) *cholecystitis catarrhalis papillomatosa:* In this group there was only one specimen. One of the villi was enlarged and appeared as a papilloma. The condition was associated with stones and an acute catarrhal reaction in the mucosa; (4) *cholecystitis papillomatosa malignum:* This type does not occur in this series because the cases seen were studied at exploration of inoperable cases; (5) *cholecystitis catarrhalis carcinomatosa:* Three cases of *cholecystitis catarrhalis chronica* were complicated by carcinoma; (6) *cholecystitis chronica:* 78 uncomplicated and 64 complicated cases; of the uncomplicated, 73 (93 per cent.) were associated with stones; (7) *cholecystitis chronica cystica:* 76 cases; (8) *cholecystitis purulenta necrotica:* 33 cases. Pericholecystitis acuta or chronica is considered a sequel of any of the above mentioned degrees of inflammation.

Two hundred and fifty-two, or 67 per cent. of the 365 cases were associated with gall-stones, which varied in shape, size and composition, all of which properties bore no apparent relation to the character of the lesion in the gall-bladder. Of the chronic catarrhal gall-bladders, 76 per cent. were associated with stones. In the more advanced cases of chronic inflammation, in the cases in which practically all of the mucosa was destroyed, the percentage was 93. From these figures it would seem that the occurrence of gall-stones bore a marked relation to the extent of the lesion and that the early acute catarrhal conditions do not necessarily occur associated with stones. MacCarty urges that the gall-bladder, liver, duodenum, pancreas and stomach are embryologically, anatomically, physiologically and pathologically closely related and should be considered a gastro-duodeno-hepatico-pancreatic physiologic system.

72. **Operation for Umbilical Hernia.**—On account of the accumulated fat in the abdomen the tension in these cases is sometimes considerable, and favors return of the hernia. To overcome this Kelly makes an incision from the right and left margins of the hernial opening all the way across and through the strong fibrous sheaths of the recti, then detaching and raising the sheaths from the recti above and below for 2 or 3 cm. The hernial sac is then freed from the rest of the tissue. It is opened and any adherent omentum present is removed. If the intestines are adherent they are carefully dissected free, and replaced in the abdominal cavity. The peritoneum is next sewn together with catgut. Next sew the free margin of the lower under the upper flap from side to side with four to six interrupted silk sutures, using if needs be, catgut between them. If the transrectal incision is angled a little upward and the overlapping of the recti is well done, there may be little tension; there is always a greatly diminished tension in the overlapping at the ring itself. The free overhanging margin of the upper flap is now sewed by a continuous catgut suture to the fibrous tissues and the supporting part of the operation is completed.

California State Journal of Medicine

May

75 Leprosy in San Francisco Previously Undiscovered. W. F. Cheney, San Francisco.
76 Lawsuit for Alleged Malpractice. H. J. Kreutzmann, San Francisco.
77 Prosecution of Illegal Practitioners. J. A. Crawshaw, Hanford.
78 Tumor of the Medulla Oblongata. L. Newmark and M. B. Lennon, San Francisco.
79 Traumatic Injuries of the Head. O. D. Hamlin, Oakland.
80 Remarks Under Head of Geographical Distribution of Leprosy. A. A. O'Neill, San Francisco.
81 The Psychoneuroses: Present Status of Hysteria and Neurasthenia. C. L. Allen, Los Angeles.

Journal of Infectious Diseases, Chicago

May

82 *Relation of Pseudodiphtheria and the Diphtheria Bacillus. P. F. Clark, Providence, R. I.
83 *Plague Infection in a Brush-Rat (Neoatoma Fuscipes). G. W. McCoy, U. S. P. H. and M.-H. S.
84 Susceptibility to Plague of the Prairie Dog, the Desert Wood Rat and the Rock Squirrel. G. W. McCoy and F. C. Smith, U. S. P. H. and M.-H. S.
85 *Distribution of Bacteria in Bottled Milk, and Certain Controlling Factors. J. C. Torrey and A. H. Rahe, New York.
86 *The Value of Opsonin Determinations in the Discovery of Typhoid Carriers. A. Hamilton, Chicago.
87 Pneumococci from Infectious Endocarditis. E. C. Rosenow, Chicago.
88 *Immunologic Studies in Chronic Pneumococcus Endocarditis. E. C. Rosenow, Chicago.
89 An Outfit for Sending Bile, Specimens of Blood, Feces and Urine, and Some Results of the Examination of Such Material. W. R. Stokes and H. W. Stoner, Baltimore, Md.
90 Bacillus Abortus of Bang, the Cause of Contagious Abortion in Cattle. W. J. MacNeal and J. E. Kerr, Urbana, Ill.
91 The Wassermann Reaction. L. T. Clark, Detroit.
92 *The Influence of Age and Temperature on the Potency of Antidiphtheritic Serum and Antitoxic Globulin Solution. J. F. Anderson, Washington, D. C.

82. **Pseudodiphtheria and Diphtheria Bacillus.**—From a careful study of the literature, and from an extended series of experiments, Clark believes himself justified in saying that the pseudodiphtheria bacillus or *B. hofmanni* belongs to a different species from the true Klebs-Löffler bacillus. Doubtless both organisms belong to the same groups and came from common ancestors, but the differences seem to be sufficiently constant to place them in separate species.

83. **Plague Infection in a Brush Rat.**—The fact is now established, says McCoy, that these animals may have plague, which adds another factor to the already perplexing problem of the transmission of plague among the rodents of the Pacific Coast. Fortunately, the brush-rat is not sought for its flesh, as is the ground squirrel, nor does it ordinarily build its nest near human habitations as do the domestic rats.

85. **Bacteria in Bottled Milk.**—Torrey and Rahe found that the upper two ounces of the cream of fresh bottled milk of fair quality contain on the average of 50 to 100 per cent. more bacteria than an equal amount of the lower cream. In older and more grossly contaminated milk the lower cream may embody as many as Hess has suggested; there generally results a reduction of from 30 to 50 per cent. in the bacterial count. The dominant controlling factor in the primary disposition of bacteria in a milk bottle is the upward "rafting" activity of the fat globules. A higher percentage of bacteria are brought to the surface layers in a milk rich in cream than one poor in that substance. At ice-box temperature the rate of increase of bacteria in the cream and that in the skim milk are practically identical. As the temperature is elevated the rate of multiplication in the skim milk outstrips that of the cream until at 30 C. it may be many times as rapid. In certain samples of rather highly contaminated milk the abrupt

change in the temperature of the environment from 5 C. to 30 C. caused a striking bacteriolysis in both the cream and the skim milk. This was probably an expression of bacterial antagonism: The sediment portion of the average bottle of fresh milk contains frequently fewer bacteria than any other region of the fluid. A marked excess of bacteria in the sediment indicates that the milk is old or that it has been kept in a warm place.

86. This paper covers similar ground to that of the same author published in THE JOURNAL, Feb. 26, 1910, p. 704.

88. **Chronic Pneumococcus Endocarditis.**—The points that in Rosenow's opinion seem to merit specific emphasis are the following: In chronic pneumococcus endocarditis the serum has no pneumococcidal power by itself. The phagocytic power of the patient's blood is usually a better index of the actual conditions than the opsonic power of the serum determined with normal leucocytes and even with patient's leucocytes. The destructive power of the patient's blood as compared with that of normal blood corresponds well with the clinical conditions. Hence less reliance should be placed on the results of the opsonin determinations in which no account is taken of the fate of the ingested cocci. The phagocytes in chronic infectious endocarditis show greater variation in their own serum than in normal serum. Variations in the opsonic power of the sternum sometimes occur independently of variations in the phagocytic and destructive power of the leucocytes, but the variations on the part of the leucocytes is always dependent on changes in the serum. While the chief action of serum in phagocytic mixtures is on the bacteria, there is no question, from the evidence at hand, but that the serum also exerts a definite and sometimes a striking influence on the leucocytes. Intraleucocytic destruction is dependent on a substance or property always present in normal serum and in normal leucocytes after treatment with normal serum, but frequently absent in the serum and leucocytes in chronic cases of endocarditis. At times the patient's serum is not only lacking in this substance, but contains another substance which seems to neutralize that in normal serum. This substance is not taken up by the bacteria but the opsonin or some other substance contained in washed sensitized pneumococci is necessary to activate it, because the cocci, which have undergone spontaneous phagocytosis fail to show digestion. Phagocytosis alone, even though marked, does not seem to injure the leucocytes in any way. The bacteria isolated from the cases shown appear to be modified pneumococci and prolonged cultivation in normal serum not only renders them largely resistant to phagocytosis, but makes them also resistant to intraleucocytic digestion. Both these properties are promptly lost in artificial media.

92. **Potency of Antidiphtheritic Serum.**—The average yearly loss in potency of diphtheria antitoxin is about 20 per cent.; at 15 C., about 10 per cent.; and 5 C., about 6 per cent., although in some instances these percentages may be much increased. As a result of this work, there appears to be but little difference in the keeping qualities of untreated sera and sera concentrated by the Gibson process. Diphtheria antitoxin to be placed on the market and there kept under unknown conditions as regards temperature should not be labeled with a return date longer than two years for decrease in potency; in addition, when the serum is sold in syringes with an absorbable piston an excess should be added for this loss. Dried diphtheria antitoxin kept in the dark at 5 C. retains its potency practically unimpaired for at least 5½ years. The lack of confidence in the therapeutic properties of old sera is without basis, as such sera, unit for unit, are as potent as new sera. The protective value of diphtheria antitoxin is in exact accord with its unit value, and is independent of the volume of the serum or other properties in the serum.

Journal Delaware State Medical Society, Wilmington

April

93 Albuminuria in Acute and Chronic Nephritis. J. H. Wilson, Dover.
94 Medical Ethics. G. F. Campbell, Selbyville.

May

95 The Relation of Malaria to the Acute Inflammatory Catarrhal Affections of the Throat and Posterior Nares. C. J. Harbordt, Dover.

Laryngoscope, St. Louis

April

96 Nystagmus Characterized by Rapid Head-Movements. Their Diagnostic Value and Theoretic Explanation. R. Barany, Vienna.
97 Stereoscopic Mastoid Radiograms. S. Lange, Cincinnati.
98 Laryngeal Neoplasms. J. L. Davis, Philadelphia.
99 Esophagoscopic Removal of Open Safety Pins by a New Method. C. Jackson, Pittsburg.
100 Cordectomy for Bilateral Abductor Paralysis, with Demonstration of Specimen. J. W. Gleitsmann, New York.
101 Eye Fixation Forceps Used in Submucous Resection of Nasal Septum. J. M. Foster, Denver.
102 The Diaphragm in Tone Production: A Fluoroscopic Study. J. W. Boyce and A. A. MacLachlan, Pittsburg.
103 The Laryngologic Work of the British Medical Association and the Sixteenth International Medical Congress in 1909. D. B. Delavan, New York.
104 A Gouge for the Removal of the Bony Maxillary Ridge in the Submucous Septal Operation. A. Braun, New York.

Memphis Medical Monthly

April

105 Delirium Tremens: New Plan of Treatment. G. E. Pettey, Memphis.
106 Fatal Cases of Appendicitis. J. W. Barksdale, Vaiden, Miss.
107 The Causes of Continued Hoarseness in the Adult. R. McKinney, Memphis.
108 Arteriosclerosis, a Factor of Insanity. G. G. Buford, Memphis.
109 What and How Shall We Feed Our Fever Patients? D. A. Walker, Trenton.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London

May 14

1 Traumatic Tuberculosis, Traumatic Pneumonia and Traumatic Pleurisy. E. P. Weber.
2 *Von Pirquet's Tuberculin Reaction in the Surgical Diseases of Children. P. Mills.
3 *The Tuberculin Skin Reaction (Von Pirquet). J. W. Bride.
4 Points Relating to Therapeutic Immunization. J. C. Mac-Watters.
5 The Classification of the Symptoms of Lead Poisoning. W. D. Prendergast.
6 *Plumbism Treated by the Internal Administration of Calcium Permanganate. G. A. Stephens.
7 Causes of Absorption of Oxygen by the Lungs. C. C. Douglas and J. S. Haldane.
8 Auscultatory Friction. H. H. Brown.

2. **Von Pirquet's Tuberculin Reaction.**—The reaction was tried by Mills on 48 children who had been carefully examined without any evidence of tuberculous disease being detected. In every case the reaction was negative. Of cases known to be tuberculous there are 21 in Mills' series. Of these, 19 gave a positive reaction. Two cases gave no reaction; they were: tuberculous peritonitis, tuberculous hydrocele of the tunica vaginalis. Of cases clinically diagnosed as tuberculous there were 43. Thirty-four gave a positive reaction, 9 gave a negative reaction. Of these, 8 eventually proved to be almost certainly not tuberculous. The remaining case, one of spinal caries, is one of the 4 cases in his series in which the reaction was misleading. Of cases clinically doubtful there were 11. Three of these gave a positive reaction; 8 cases gave a negative reaction. Thus of a total of 123 cases the reaction was misleading in 4 only. Two of these were tuberculous peritonitis, one was spinal caries, and one was lymphadenoma, in which the reaction was positive. Mills also found that a previous injection of tuberculin will not produce a reaction in a healthy patient, while an initial injection of tuberculin modifies the type of the reaction in a tuberculous case. The type returns to normal in about a week. Bovine tuberculin behaves in an exactly similar manner to ordinary human tuberculin when used for the reaction. The reaction to bovine tuberculin was similarly modified in type by a subcutaneous injection of human tuberculin.

3. **The Tuberculin Skin Reaction.**—Bride applied the test in 92 cases. He came to the conclusion that the test is of great help in the early diagnosis of pulmonary tuberculosis and in its distinction from unresolved pneumonia and chronic bronchitis, in the differential diagnosis between enteric fever and abdominal tuberculosis, in the early diagnosis of abdominal tuberculosis, and also in the diagnosis of the cause of pleuritic effusions. It is not of much help in cases of tuberculous meningitis, tuberculosis where some acute infectious disease accompanies it, and in tuberculosis associated with much pyrexia.

6. **Calcium Permanganate in Plumbism.**—Stephens found calcium permanganate to be of value in the treatment of plumbism, giving ¼ grain (0.015 gm.) three times a day.

Lancet, London

May 14

9 Some Embryologic Problems in Relation to Medicine. P. Thompson.
10 The Study of the Influences Determining the Prevalence of Bovine Tuberculous Mastitis. S. Delepine.
11 Blackwater Fever. D. G. Marshall.
12 Death from Perforation of the Aorta by a Halfpenny Impacted in the Esophagus. G. G. Turner.
13 Modern Statistical Methods. J. M. Troup and G. D. Maynard.
14 *Modern Methods of Delivery in Contracted Pelves. E. H. Tweedy.
15 The Occurrence of Acetonuria in Cases of Infectious Diseases. A. Harris.
16 Case of Lymphatism. L. P. Burt and J. R. Collins.

14. **Delivery in Contracted Pelves.**—Tweedy sums up his views on the treatment of contracted pelves as follows: 1. Induction of premature labor is never advisable. 2. Perforation is not permissible unless the child is dead. 3. Turning should never be employed as a treatment for contracted pelvis, but may still be performed for complications of labor, such as prolapse of the cord when associated with contractions of the first and second degree. 4. In the greater degrees of contraction time should not be wasted in an endeavor to obtain natural delivery. 5. On the other hand, in the lesser degrees ample time should be given the woman to enable her to deliver herself if possible. Eight or ten hours may be necessary for the molding of the head, and interference should not be considered until there are evidences of fetal or maternal distress. Once fetal symptoms of distress are manifested there should be no delay in delivery. Walcher's position should not be forgotten as an aid to fixation of the head; 6, high forceps should never be applied until all arrangements are perfected for an operation to enlarge the pelvis. It is, in his opinion, a pity to proceed to the latter expedient until forceps have been tried tentatively. It must be confessed they occasionally accomplish their purposes under the most unexpected circumstances. Finally, in these, as in all other obstetric operations, the best results cannot possibly be obtained if rubber gloves are not worn.

British Journal of Children's Diseases, London

April

17 *X*-Ray Photographs from a Boy, aged Three Years, the Subject of Habitual Constipation. E. I. Spriggs and H. F. L. Hugo.
18 Some Thoughts on the Control of Zymotic Enteritis. J. Allan.

Journal of Obstetrics and Gynecology of the British Empire, London

April

19 *After-Results of Abdominal Operations on the Pelvic Organs in 1,000 Consecutive Cases. A. E. Giles.
20 *The Ureter in Cancer of the Cervix Uteri. A. Leitch.
21 The Management of the Ureters in Abdominal Pelvic Operations. R. C. Buist.
22 Jonas' and Raynalde's "Byrth of Mankynde." W. J. Ballantyne.

19. **After-results of Abdominal Operations.**—According to Giles the removal of both ovaries and tubes has no marked effect on the subsequent health, for 78 per cent. of the patients were in very good health afterward, and a further 13 per cent., though suffering in different ways, were better than before the operation, making in all 91 per cent. who were quite well, or at least improved. The condition of the general health is even better than it is after unilateral salpingo-oöphorectomy. The likelihood of later trouble developing in connection with the uterus when the organ is left is relatively small, as such an occurrence took place in only 7 cases out of 105. It is therefore worth while leaving the uterus in all cases where it appears to be healthy. The removal of the uterus appears to increase the immediate risk of the operation in inflammatory cases. Menstruation continues after these operations in about 40 per cent. of the cases, the proportion being largest in cases where the operation was done for inflammatory disease. When menstruation persisted after ovariotomy for tumors, it was mostly in cases where the tumors were parovarian or intraligamentary. The inference is that some portion of ovarian tissue has remained behind in these cases.

20. **The Ureter in Cancer of the Cervix Uteri.**—Leitch found that involvement of the ureter is the commonest occurrence in post-mortem examinations of cancer of the uterus. It can be demonstrated also in operable cases. This involvement consists in the production of stricture frequently, (a), by contraction of growth in the surrounding parametrium; (b), by invasion of the ureter wall; and sometimes, (c), by fibrosis in the parametrium, due either to chronic inflammation or to the reaction to cancer cells which have disappeared locally. The ureteral wall may be invaded by cancer directly from the surroundings, the invasion being sometimes evident on naked eye examinations; at other times, even when extreme, demonstrable only by the microscope. Lymphatic permeation of the ureter does occur, and the lymphatic vessels of the ureter and parametrium probably communicate. The nature of the surrounding tissue in the parametrium, the open texture, the proximity of the principal lymphatic vessels from the uterus, the danger of invasion and the peculiarity of the blood supply render resection of the parametrial portion of the ureter advisable when the parametrium is invaded.

Dublin Journal of Medical Science

April

23 Acute Leukemia. R. T. Smith and H. C. Earl.
24 The Physico-therapy of Sciatica. M. Orb.
25 Piroplasmosis and Experimental Piroplasmosis. A. E. Mettam.

Indian Medical Gazette, Calcutta

April

26 The "Epidemic Dropsy" Type of Beri-beri at the Presidency General Hospital, Calcutta. J. W. D. Megaw.
27 Staphylococcal Cerebrospinal Meningitis Treated by Specific Vaccination. R. F. Standage and A. J. H. Russell.
28 Typhoid Fever in Baghdad, Turkish Arabia. H. B. Rosair.
29 Therapeutic Uses of Boerhaavia Diffusa (Linn). B. B. Basu.
30 Administration of Quinin in Cases of Fever During Pregnancy. J. E. Bocarro.

Archives des Maladies du Cœur, etc., Paris

May, III, No. 5, pp. 273-336

31 *Anemia and Leucolytic Processes Following Roentgen-Ray Exposures in Leukemia. W. Oettinger, N. Flessinger and Sauphar.
32 Reactions on Part of Elastic Tissue of the Arteries. L. Bory.
33 Functional Disturbances Dependent on the Specific Muscular Systems of the Heart. E. Hering.

31. **Anemia and Leucolytic Processes Following Roentgen-Ray Exposures in Leukemia.**—The authors consider that the two cases reported demonstrate that Roentgen-ray treatment of leukemia induces both direct and indirect leucolysis; the latter is the work of a leucolytic ferment which seems to be produced in some way under the influence of the rays, and which prolongs the leucolytic action. The red corpuscles also feel the effect of the rays to some extent, so that the blood picture comes to approximate that of pernicious anemia. There is thus always the possible peril with radiotherapy of leukemia that the chronic myelogenous leukemia may become transformed into an acute phase by the development of this corpuscle-disintegrating ferment. The cases further emphasize, they state, the necessity for cautious technic in radiotherapy, with long intervals, especially when the patient reacts promptly and energetically to the exposures.

Bulletin de l'Académie de Médecine, Paris

May 3, LXXIV, No. 17, pp. 371-383

34 *Osteotomy in Treatment of Little's Disease. E. Kirmisson.
35 *Injuries of the Hand and Tincture of Iodin. (Les plaies de la main et la teinture d'iode.) P. Reclus.

34. **Osteotomy in Treatment of Little's Disease.**—Transverse subtrochanteric osteotomy remedied the inward rotation of the legs causing interference of the knees in the case described. This effectually supplemented two previous operations on the muscles. The patient was a girl of 17 and the gait now, ten months later, is apparently normal.

35. **Accidents of the Hand.**—See Paris Letter, page 1883.

Lyon Chirurgical, Lyons

May, III, No. 5, pp. 485-604

36 McBurney's Point and Lanz' Point. A. Garau.
37 Appendicitis and Tuberculosis. G. Gayet and Croizier.
38 Leucocytosis in Appendicitis. P. Vignard and L. Arnaud.
39 *Tincture of Iodin for Sterilization of the Skin. (L'asepsie du chirurgien et de l'opéré par la teinture d'iode.) L. Bérard and J. Chattot.

39. **Iodin Method of Surgical Sterilization.**—Bérard and Chattot have tested tincture of iodin in treatment of accidental wounds and state that the results showed that it is fully able to sterilize the hands experimentally contaminated with ordinary accidental germs. In a number of emergency cases during the last 3 years, while the field of operation was being painted with the tincture, the surgeon poured the tincture pure or diluted with alcohol over his hands, letting them dry spontaneously before rubbing off the excess with an alcohol wad, omitting all preliminary scrubbing, but there were no infectious complications. The only drawback is that the hands are liable to chap if it is done several times during the day. In order to avoid this, when time permits, they scrub first and thoroughly dry the hands, then pour the tincture of iodin on the fingers, spreading it thence over the forearm. The whole sterilization is complete in from 5 to 7 minutes and they have never had excoriation result with this latter technic. A number of aseptic operations can be performed in turn without renewing the sterilization, merely washing the hands between with soap, water and alcohol for a few minutes. But this loses the main advantage of the Grossich technic, which is that the tincture of iodin alone enables the surgeon to operate safely in regions otherwise prone to infection.

Presse Médicale, Paris

May 7, XVIII, No. 37, pp. 337-352

40 *Acute Thyroiditis and Cardiovascular Complications. J. Parisot.
41 *Dwarf Growth as Result of Intoxications. (Le nanisme toxique.) M. Perrin and L. Richon.
42 *Dosage of Quinin in Malaria. (Mécanisme d'action physiologique de la quinine sur les accès palustres.) A. Tournade and G. Giraud.
43 General Pathology of Lymphadenia According to Recent Writers. A. Clerc.
44 *Improved Technic for Paraffin Treatment of Ozena. R. Leroux.

May 11, No. 38, pp. 353-360

45 Influence of High-Frequency Currents on the Temperature of Deep-Lying Tissues: Thermopenetration. (La diathermie.) A. Zimmern and S. Turchini.

40. **Acute Thyroiditis and Cardiovascular Complications.**—Parisot has encountered four cases of this kind. In the first, the thyroiditis followed the subsidence of puerperal fever; in the second it developed six weeks after the onset of typhoid fever; in the third it occurred during convalescence from mumps in a man of 28. In all these cases the thyroiditis subsided under medical measures but in the fourth case the thyroiditis came on 26 days after the onset of a sharp but brief pneumonia from which the patient had entirely recovered. In this case the process in the thyroid progressed to suppuration, and the pneumococcus was found in the pus. In all the cases there was marked tachycardia without any connection with the temperature. This lack of connection with the fever, which might be severe, mild or entirely absent, was a striking feature of the cases and, when encountered, Parisot says, should suggest thyroiditis and compel search for signs of disturbance in that region. The tachycardia was sometimes aggravated by physical exertion and sometimes was accompanied by paroxysmal palpitation of the heart. Various vasomotor reactions were also noticed. The blood pressure was also at times abnormally low. Study of the cases has demonstrated that these cardiovascular symptoms were always connected with the phase of congestion in the gland; the inflammatory congestion induces hyperfunctioning and this is responsible for the cardiovascular complications. In conclusion, he compares his cases with a few similar ones on record, emphasizing the fact that these cardiovascular complications of acute thyroiditis may become associated with other symptoms to form an incomplete and transient exophthalmic goiter or may merge into the typical and permanent form.

41. **Experimental Dwarf Growth Induced by Tobacco Poisoning.**—Perrin and Richon systematically injected 19 young rabbits from three litters with an infusion of tobacco and found that it seemed to arrest the growth of the animals to a certain extent, both weight and size being considerably less than in the controls from the same litters. There was no tendency to rachitis or malformations, merely a lesser growth of all the tissues. After cessation of the injections the animals grew normally but never attained the size and weight of the controls.

42. **Physiologic Action of Quinin in Malaria.**—A diagram and several clinical charts illustrate the points emphasized by Tournade and Giraud, namely, that the dose of quinin should be given at the hour when the malaria germs are in the most vulnerable phase of their development, and that the dose should be large enough to act thoroughly on them all. If the dose is given when the plasmodia are in the prime of their vitality or are sheltered inside the blood corpuscles it has comparatively little effect on them, and if the dose is too small it does not annihilate the germs but merely modifies the paroxysms into atypical forms. Experience has authoritatively confirmed the value of the rule to give the quinin at the onset of the febrile paroxysm, graduating the dose to the type of infection: 2.5 gm. (40 grains) for the quotidian; 2 gm. (30 grains) for tertian, and 0.5 gm. (8 grains) for the quartan form. The paroxysm in question is apparently not affected by the drug but those that would follow it otherwise are suppressed.

44. **Improved Technic for Paraffin Treatment of Ozena.**—Leroux combines the advantages and avoids the perils of the hot and cold methods of injecting paraffin in treatment of ozena. This he accomplishes by injecting the paraffin cold, and several days later he applies a jet of superheated air to the spot under the influence of which the paraffin softens as if it had just been injected hot, penetrates into the crevices and spreads out in a mere even layer. At the same time the hyperemia thus induced stimulates the secretions and aids in the cure of the ozena. He asserts that the injection of paraffin under the nasal mucosa is the only means of actual cure of this disease, all other measures having merely a palliative effect. He uses paraffin with a melting point at 45 C. and injects it in the inferior turbinate and the upper part of the septum, aiming to retain so far as possible the natural shape and size of the passages and facilitate the flow of air through them. It is important, he says, to commence at the remotest part and to allow time for the lesion to heal before making another injection.

Semaine Médicale, Paris

May 11, XXX, No. 19, pp. 217-228

46 Chronic Syphilitic Muscular Atrophy and Tabes. F. Rose and H. Rendu.

Berliner klinische Wochenschrift

April 25, XLVII, No. 17, pp. 757-812

47 Physiology of the Brain According to Latest Research. (Neuere Ergebnisse der Hirnphysiologie.) M. Rothmann.
48 *Indications and Technic for Operative Treatment of Stenosis of Pylorus in Infants. (Operation bei der Pylorusstenose des Säuglings.) K. Ochsenius and W. Weber.
49 Chondrotomy for Emphysema from Rigid Thorax. (Zur Behandlung der auf starrer Ausdehnung des Brustkastens beruhenden Formen von Lungenblähung-Emphysem.) O. Rosenthal.
50 *Nature of the Mountain Sickness in the Andes. (Zum Wesen der andinen Bergkrankheit.) W. Knoche.
51 Physiologic Data from Observation Station at 16,000 Feet. (Einiger physiologischer Untersuchungen aus der Kordillere Hoilvien.) W. Knoche.
52 Pathologic Anatomy of Stab Wounds of the Liver. (Stichverletzungen der Leber.) K. Wakasugi.
53 Enlargement of Liver in Rats with Experimental Cancer. (Ergebnisse eines Fütterungsversuches bei Ratten, die überimpfte Tumoren trugen.) F. Medigreceanu.
54 Exhaustion of Agglutinins in Typhoid. (Untersuchungen über die Erschöpfung des Agglutinins bei typhoiden Erkrankungen.) W. Spät.
55 Cholera Not a Nitrite Intoxication. (Choleragift und Nitritvergiftung.) A. H. van den Bergh and A. Grutterink.
56 Hematuria from Varicose Veins in Bladder. (Ueber varicöse Blasenblutungen.) J. Vogel.
57 Blepharotomy for Eczematous Conjunctivitis. Schultz-Zehden.
58 Present Status of Testing Intestinal Functioning. (Moderne Darmdiagnostik.) J. Wltte.

48. **Operative Treatment of Stenosis of the Pylorus in Infants.**—Ochsenius reports 14 cases observed during the last three years and discusses the indications for operative treatment, which was applied in 2 cases with good results. The technic was simplified to a mere longitudinal incision about 2 cm. long in the enlarged and thickened pylorus. The incision was carried down through the pylorus musculature to the mucosa but the latter was left intact. The lips of the wound were then spread and sutured transversely to the axis of the pylorus. This, he states, accomplished the desired

result without making an opening into the stomach and the rapid recovery of the children confirmed the advantages of this technic. He regards the decline in weight as the index for the necessity of operative treatment, a loss of 34 per cent. in body weight being inevitably fatal; even 30 per cent. for breast-fed children and 27 per cent. for others is beyond the danger limit. The weight at birth gives an approximate base for estimation of the weight if records have not been kept. The children were all under 5 weeks old, and 2 died under medical measures only. The fate of the child lies in the hands of the internist; if a week or two of careful internal treatment shows no tendency to improvement an operation should be suggested, and this technic deprives it of most of its dangers. The after-treatment by the pediatrist and attendants is almost as important as the operation itself, Weber (who performed the operation) remarks. He is convinced that in many cases on record the operation would have been successful if the children had received proper attention afterward.

50. **Nature of Mountain Sickness in the Andes.**—Knoche describes the mountain sickness in the Andes as experienced by himself and his party, and emphasizes the importance of the electric charge in the atmosphere as the predominant factor in the sudden attacks of mountain sickness, describing the features and mechanism of the disturbance. The symptoms due to the rarefaction of the air should be distinguished from those resulting from the electric and radioactive elements. The latter are not observed in aviation. The violent, brief attack passes over in a short time, leaving no trace, and it occurs mostly in sheltered valleys.

Deutsche medizinische Wochenschrift, Berlin

May 5, XXXVI, No. 18, pp. 825-872

59 Aneurism of the Abdominal Aorta Perforating into Inferior Vena Cava. R. Elbe.
60 Hemianopsia. C. Behr.
61 Isolated Paralysis of the Musculocutaneous Nerve. (Zur Kenntnis der isolierten Lähmung des N. musculo-cutaneus.) E. Osann.
62 *Manifold Manifestations of Visceral Syphilis. J. Kretschmer.
63 Opsonins and Staphylococcus Immunity. A. Strubell.
64 Case of Acute Traumatic Insufficiency of the Kidneys. (Akuter traumatischer Niereninsuffizienz.) W. Beuster.
65 Rupture of Cicatricial Hernias. (Ruptur von Bauchnarbenhernien.) G. Maetzke.
66 *Treatment of Habitual Abortion. F. Turan.
67 Centennial of the Berlin Medical University Policlinic. (Rede zur Eröffnung des Sommersemesters 1910 im Medizinisch-Poliklinischen Institut der Friedrich Wilhelms Universität als Gedenkfeier zu dessen 100 jährigem Bestehen.) H. Senator.

62. **The Protean Manifestations of Visceral Syphilis.**—Kretschmer insists that the possibility of syphilis should always be borne in mind when confronted with any vague or atypical abdominal syndrome, especially when more than one of the viscera seem to be involved. In the first of the 6 cases of the kind reported, the participation in the syndrome of liver, spleen, intestines and kidneys and the absence of fever, jaundice and edema suggested a possible syphilitic origin, which was confirmed by a history of infection five years before and the gradual complete recovery under mercury and iodid. The only explanation possible is the assumption of multiple gummata in the abdominal organs and their entire retrogression. In two other cases the symptoms resembled those of a former patient explained at autopsy as congenital interstitial hepatitis; it was rebellious to all measures in both instances as also in a third case in which the diagnosis had been hypertrophic cirrhosis of the liver with compression of the bile ducts, but autopsy showed that they were patent. This patient was under observation for nearly 10 years; jaundice had recurred at intervals since childhood, but the patient bore a healthy child at the age of 23. In the fourth case a large tumor had developed in the abdomen three months after removal of an ovarian sarcoma. Some of the findings suggested pseudoleukemia, but a history of four abortions also suggested syphilis. Specific treatment for syphilis was combined with Roentgen-ray exposures and the tumor rapidly retrogressed while the general condition improved. The fifth patient presented a puzzling syndrome explained at autopsy as syphilitic iced liver and chronic adhesive peritonitis. The sixth case reported illustrates the evil of assuming a syphilitic affection when a harmless nervous or other disturbance is encountered in a patient with a history of syphilis in the past.

66. **Hyperemic Treatment of Habitual Abortion.**—Turan calls attention to two cases in which he was able to correct a tendency to habitual abortion by the systematic introduction into the uterus of a suction cannula. It not only induces hyperemia in the organ but stimulates it to muscular contractions, this exercise aiding in restoring normal conditions. In the first case he applied the cannula for half an hour at a time, at 20 sittings in the course of 7 weeks; in the second case the cannula was left for 10 hours at a time, the procedure being repeated 8 times in the course of one month. Both women have since borne healthy children, although there was a history of 5 and 3 abortions, respectively; the patients were 27 and 23 years old.

Münchener medizinische Wochenschrift

May 3, LVII, No. 18, pp. 945-992

68 *Prophylaxis of Epidemic Poliomyelitis. (Zur Prophylaxe der epidemischen Kinderlähmung.) P. H. Römer and K. Joseph.
69 Production of Atypical Proliferation of Epithelium by Injection of Products of Putrefaction of Albumin. (Zur Erzeugung atypischer Epithelwucherungen mit Eiweissfäulnisprodukten.) H. Stoeber and L. Wacker.
70 Fluoroscopy in Research on the Circulation. (Kreislaufstudien am Röntgenschirm.) O. Franck and W. Alwens.
71 *The Specific Meiostagmin Reaction. H. M. Ascoli and G. Izar.
72 *Transmission of Typhoid by Infants. (Ueber Typhusverschleppung durch Säuglinge.) Rommeler.
73 Roentgen-Ray Treatment of Chronic Bronchitis and Bronchial Asthma. T. Schilling.
74 Rumination in Infants and Older Children. (Rumination im Säuglings- und späteren Kindesalter.) A. Wirtz.
75 *Rectal Gonorrhea in Children. (Ueber Rektalgonorrhöe im Kindesalter.) L. Kaumheimer.
76 Tincture of Iodin in Sterilization of the Skin. (Die Grossichsche Methode der Hautdesinfektion.) K. Knoke.
77 Permeability of the Kidney for Bacteria. (Zur Frage der Durchgängigkeit der Niere für Bakterien.) W. Wysokowicz.
78 *International Institute for Medical Bibliography. (Grundzüge der Organisation der medizinischen Literatur.) E. Abderhalden.

68. **Prophylaxis of Epidemic Poliomyelitis.**—Römer and Joseph report experimental and clinical research which has confirmed the findings of Flexner, Lewis, Levaditi and Landsteiner. The extreme resistance of the virus is shown by persistence of full virulence for 28 days in a dried specimen in one of their tests on a monkey. Their research has further demonstrated, they state, that ordinary formaldehyd disinfection of apartments is sufficient to destroy the virus. The disease in monkeys confers immunity thereafter, suggesting the possibility of effectual clinical serovaccination. The domestic animals do not seem to convey the virus; transmission requires human contact, and healthy germ carriers are a formidable factor in the epidemic incidence of the disease.

71. Discussed editorially in THE JOURNAL, May 28, 1910, p. 1790.

72. **Transmission of Typhoid by Infants.**—Rommeler warns that when a nursing mother has typhoid and is sent to the hospital, the infant should accompany her as it is liable to have contracted the infection and, although apparently healthy, may yet serve as conveyor of typhoid bacilli. In the case reported, the infant was received into a friend's home when the mother was taken to the hospital. It was noticed that the child had a little diarrhea, but as it was being weaned, and seemed otherwise well, no attention was paid to this sign of trouble until one after the other six members of the family contracted typhoid and one died. The infant's serum responded positively to the agglutination test although the child kept comparatively well throughout.

75. **Rectal Gonorrhea in Children.**—Kaumheimer urges that greater attention should be paid to involvement of the rectum in case of gonorrhea, especially in children. This may be the cause of the unusual obstinacy of vulvovaginitis in little girls, the infection recurring again and again after the vulvar and vaginal lesions have been cured. The involvement of the rectum is seldom revealed by any clinical manifestations and thus it is liable to escape discovery. He warns in particular to refrain from taking the temperature in the rectum in patients with vulvovaginitis, unless extraordinary care to prevent conveyance of the infection is observed.

78. **Organization of Medical Literature.**—Abderhalden describes the principles on which is based this newly organized attempt in Germany to keep a comprehensive survey over the

entire field of medical literature in all countries. The aim is to publish a monthly index, something like the *Index Medicus*, absolutely complete, but in separate sections for each special field. This is to be supplemented by journals devoted to abstracts only, and each restricted to some special field. The system is completed by the year-books to compile and serve as a guide through the achievements of the past year, each in its restricted field. The centralblatts and year-books already in existence, three of which (biology, biochemistry and veterinary medicine) have already agreed to affiliate with the system, will enlarge their scope while restricting themselves more closely each to its special field. By intercommunication, distribution and exchange of material it is hoped thus to bring the medical literature of the world into a comprehensive and orderly arranged system whereby every article will be listed and important ones summarized and grouped for each reader in an accessible place. He adds that this has already been accomplished for stomatology and, in part, for chemistry.

Wiener klinische Wochenschrift, Vienna

May 5, XXIII, No. 18, pp. 651-684

79 *Characteristics of Cerebrospinal Fluid and Differential Diagnosis from its Examination. E. Mayerhofer.
80 Determination of Tubercle Bacilli in the Placentas of Tuberculous Mothers. J. Novak and F. Ranzel.
81 Decline During Measles of Specific Susceptibility to Vaccine. (Ueber Abnahme der spezifischen Vakzineempfindlichkeit während der Masern.) F. Hamburger and O. Schey.
82 Technic of Wassermann Reaction. (Verhalten von verschiedenen Extrakten bei der Wassermannschen Reaktion mit Berücksichtigung ihrer antikomplementären und hämolytischen Wirkung.) G. Satta and A. Donati.
83 *Influence of Heredity on Incidence of Gastric Ulcer. (Einfluss der Heredität auf die Bildung des Magengeschwürs.) W. Czernecki.
84 Treatment of Chancroids and Buboes. (Zur Behandlung des Ulcus molle und der Bubonen.) L. v. Zumbusch.

79. **Differential Diagnosis from Cerebrospinal Fluid.**—Mayerhofer states that the cerebrospinal fluid always reduces a permanganate solution when boiled with it, and that the intensity of the reducing reaction is an index of different pathologic conditions. He gives the details of eighteen cases to show the valuable information to be derived by this simple test. It can be applied also to the urine, and he is now studying it as applied to infants' urine. An exudate, of course, contains more organic substances than a transudate, and the differentiation is done by heating 1 c.c. of the cerebrospinal fluid mixed with 50 c.c. of distilled water and 10 c.c. of a 25 per cent. solution of sulphuric acid. Just as it boils, 10 c.c. of a one-tenth normal solution of potassium permanganate is added and the whole kept simmering for 10 minutes, when 10 c.c. of a one-tenth normal solution of oxalic acid is added and the fluid becomes at once limpid as this amount of oxalic acid decolorizes this amount of the permanganate solution. Then more of the latter is added until the first drop leaves a distinct and permanent rose-colored trail. Within 15 or 20 minutes of the lumbar puncture the test is complete. The number of cubic centimeters of the permanganate solution required is the index. In meningitis the index is from 2 to 8 while with normal fluid it is very small. After intradural injection of Vienna antimeningitis serum the index dropped to half its previous figure but no change was apparent after injection of serum of French origin.

83. **Heredity and Gastric Ulcer.**—Czernecki recently encountered a family in which the mother and four adult sons and daughters all presented gastric symptoms, and three had well-defined ulcers with a tendency to recurring hemorrhage. All the members of the family were typical examples of Stiller's universal asthenia and tendency to visceral ptosis. Such cases emphasize the importance of a tendency to ptosis in the etiology of gastric ulcer, and the necessity for general treatment in this direction, never restricting treatment of a gastric ulcer to the stomach alone.

Zentralblatt für Chirurgie, Leipsic

April 23, XXXVII, No. 17, pp. 601-640

85 Prevention of Bismuth Poisoning. (Zur Verhütung der Wismutvergiftung.) E. G. Beck.

April 30, No. 18, pp. 641-672

86 *Technic to Ensure Continence with Sacral Anus. (Ueber die Schlussfähigkeit des Anus sacralis.) V. Schmieden.

May 7, No. 19, pp. 673-704

87 *Intravenous General Ether Anesthesia. F. M. Pikin.
88 Intravenous General Hedonal Anesthesia. S. P. Fedoroff.

86. **Technic to Ensure Continence with Sacral Anus.**—Schmieden makes the new anus deep in the gluteal fold, with a small opening, and the peritoneum over the intestine is drawn together and sutured to form a comparatively narrow, long tube enclosing the intestine, and reaching as high up as possible. This is pushed back into the abdominal cavity. By this means the intestine opening at the artificial anus is enclosed in this long, narrow case for a considerable distance, and when stool approaches the anus its pressure in the peritoneal envelop early warns of its presence and thus muscular control can be brought into play. An illustration of the technic is given. In one case recent examination showed entire cure of the previous complete incontinence; there had been also a prolapse of the intestine in this case. The approach of fecal matter or gas gives warning and the patient is thus able with the help of the gluteal muscles to restrain it. Schmieden is convinced that this principle of high intraperitoneal reduction of the diameter of the gut represents progress in this line.

87. **Intravenous General Anesthesia.**—Pikin relates his experiences in fifteen cases with intravenous general anesthesia which were all favorable, but the sixteenth patient died in a few minutes after the commencement of the infusion of the ether solution. Burckhardt's technic was followed in every particular, but the method has been abandoned since this mishap. The communication issues from the surgical service at St. Petersburg in charge of Grekow.

Zentralblatt für Gynäkologie, Leipsic

April 23, XXXIV, No. 17, pp. 561-592

89 Natural Devices for Closing up Vessels in the Female Genitals. (Ueber Gefässverschlussvorrichtungen im weiblichen Genitale.) C. J. Bucura.
90 Bacteriologic Diagnosis of Puerperal Fever. K. Freytag.

April 30, No. 18, pp. 593-624

91 *Histologic Research on the Influence of Roentgen Rays on Human and Animal Ovaries. (Beeinflussung menschlicher und tierischer Ovarien durch Röntgenstrahlen.) K. Reifferscheid.
92 The Streptococcus Question. (Zur Streptokokkenfrage.) E. Sachs. (Ueber Virulenzbestimmung der Streptokokken.) J. T. Bürgers.

May 7, No. 19, pp. 625-656

93 Fatal Intraperitoneal Hemorrhage with Myoma. R. T. Jaschke.
94 Incision of Perineum. (Zur Episiotomie.) M. Stolz.

91. **Action of Roentgen Rays on the Ovaries.**—Reifferscheid reports extensive experimental research and six clinical cases in which the ovaries were removed after Roentgen exposures. In all degenerative changes were evident, providing a positive histologic basis for the numerous clinical successes in the therapeutic application of Roentgen rays. One patient was a woman of 37 with pulmonary phthisis on which account abortion was induced after seven Roentgen exposures. The ovaries were removed 18 days after the last exposure, 39 days after the first, and tubal sterilization was done at the same time. None of the follicles was normal in any of the ovaries; there were also signs of capillary hemorrhage.

Gazzetta degli Ospedali e delle Cliniche, Milan

April 26, XXXI, No. 50, pp. 529-536

95 *Constriction Hyperemia in Treatment of Alcoholic Tremor. (L'iperemia alla Bier e la sua applicazione in un caso di tremore alcoolico.) R. Migliaccio.

May 1, No. 52, pp. 545-560

96 Non-Reliability of Hemolytic Test in Diagnosis of Gastric Carcinoma. S. Livierato.
97 Negative Results of Injections of Cerebrospinal Fluid in Epilepsy, etc. (La cura sottocutanea di liquido cefalo-rachideo nell' epilessia e in alcune psicosi ha qualche utilita?) A. Ziveri.

May 3, No. 53, pp. 561-568

98 *Treatment of Hydrocele. (Nuovo processo di cura radicale dell'idrocele.) G. D'Alberto.

May 5, No. 54, pp. 569-576

99 Contagiousness of Scarlet Fever. (Contagiosita della scarlattina.) G. Appiani.

May 8, No. 55, pp. 577-592

100 Experimental Neoplasms in Animals. A. Lustig.
101 Bradycardia from Malarial Infection. G. Vitello.

May 10, No. 56, pp. 593-600

102 Successful Electrotherapy of Trigeminal Neuralgia. G. Viana.

95. **Constriction Hyperemia in Treatment of Alcoholic Tremor.**—Migliaccio reports prompt improvement of chronic alcoholic tremor in the hand after application of a constricting

band above for an hour and a half a day, with complete cure by the end of the month. The benefit in this case confirms, he says, that realized in writer's cramp, neuralgia and neuroses. Maragliano commends constriction hyperemia as the best method of treating contusions and sprains, and Migliaccio says that his experience has confirmed this.

98. **Operative Treatment of Hydrocele.**—D'Alberto commends Mannino's technic as simple, easy and reliable, while free from the drawbacks of other methods. It aims to obliterate the cavity formed by the vaginal tunic and promote the formation of adhesions. He separates the vaginal tunic from the scrotum part way around, working through an incision 5 cm. long. He then makes a similar incision in the vaginal tunic and after wiping it dry turns in the cut edges and sutures them to hold them back. The lips of the incision, thus reinforced, are then sutured. By this technic the outside of the testicle is covered with the outer side of the vaginal tunic thus folded back, while the two layers of the inner aspect are brought into contact and soon develop adhesions. The result was most satisfactory in the case reported; there has been no recurrence of the effusion, which had previously resisted tapping and other measures, including Volkmann's method of treatment. The patient was a man of 57.

Policlinico, Rome

May 8, XVII, No. 19, pp. 579-610

103 Source of Contagion in Epidemic of Typhoid. (Ancora l'epidemia di Albano Laziale.) D. De Blasi. Commenced in No. 18.

April, Surgical Section, No. 4, pp. 145-192

104 Comparative Study of Effect on the Blood of Extracts of Hypophysis and Suprarenal Gland. (Effetti delle iniezioni di estratto di ipofisi e di ghiandola surrenale sul sangue.) A. Austoni and A. Tedeschi.

105 Cysts of Thyreoglossal Origin in the Floor of the Mouth. (Contributo allo studio delle cisti congenite.) O. Cignozzi. Commenced in No. 3.

Riforma Medica, Naples

April 18, XXVI, No. 16, pp. 421-448

106 *Bilateral Hydronephrosis. (L'idronefrosi da calcolosi renale a proposito di un caso di idronefrosi bilaterale.) F. Zuccari.

107 Non-Infectious Origin of Rachitis. (Teoria infettiva della rachitide.) T. Silvestri.

108 *Alimentary Levulosuria and Urobilinuria as Tests for Liver Functioning. (La levulosuria alimentare e l'urobilinuria quali metodi di indagine clinica della funzionalita epatica.) V. Brun.

April 25, No. 17, pp. 449-476

109 Opsonic Power Acquired, not Congenital. (Sulla genesi del potere opsonico.) R. Ciauri and G. Severino.

110 *Experimental Momburg-Belt Constriction. (Sull'emostasia alla Momburg. Ricerche sperimentali.) G. Carere.

111 Anatomic Study of Bundle of His. (La ricerca e l'esame anatomico del fascio di His: fascio atrio-ventricolare.) G. Roussy and Ameuille.

112 Cammidge Reaction in Normal Urine. U. Sorrentino.

May 2, No. 18, pp. 477-504

113 Kala-Azar in Children and Adults. U. Gabbi.

114 Progressive Facial Hemiatrophy. R. Ciauri.

106. **Bilateral Hydronephrosis.**—The patient succumbed to uremic poisoning shortly after an operation to remove the obstructing stones from the right kidney. The left was also found hydronephrotic, with numerous stones. Zuccari declares that in hydronephrosis from calculi the kidney should not be removed for fear of involvement of the other kidney in a similar process, as renal lithiasis is bilateral in a large proportion of cases.

108. **Alimentary Levulosuria and Urobilinuria as Tests for Liver Functioning.**—Brun gave from 1.4 to 1.7 gm. of levulose and states that the resulting levulosuria was an easy, simple, delicate, practical, accurate and harmless method of determining the functional capacity of the liver. The slightest impairment was revealed by this means, as also the progress toward recovery or aggravation. He applied the test to 400 sick children and about 100 healthy ones, all from one month to 12 years old. The effect was practically the same whether the levulose was taken before, during or after a meal. The levulose appears in the urine by the second hour and persists through the twelfth. The normal liver does not permit the levulose to pass unmodified. He also concludes from his research that urobilinuria is not pathologic unless the urobilin occurs in very large amounts.

110. **Experimental Momburg Belt Constriction.**—Carere's experiments on dogs showed that no permanent disturbances resulted from the constriction by the Momburg technic. At the same time there was invariably a tendency to paralysis in the legs feeling the effects of the constriction, but it always retrogressed sooner or later according to the technic applied. When the tubing was over 1½ inches in diameter, serious injury to the abdominal organs was occasionally observed, but when Momburg's technic was strictly followed the disturbances were only transient.

Ugeskrift for Læger, Copenhagen

April 28, LXXII, No. 17, pp. 485-518

115 Technic for Plastic Operations on the Cornea. (Undersøgelser angaaende Keratoplastik.) C. F. Heerfordt.

May 5, No. 18, pp. 519-532

116 Objective Signs of Improvement and Cure of Pulmonary Tuberculosis. (Objektive Tegn paa Bedring og Helbredelse af Lungetuberkulose.) I. Petersen.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

ALCOHOL A DANGEROUS AND UNNECESSARY MEDICINE. How and Why. What Medical Writers Say. By Mrs. Martha M. Allen, Superintendent of the Department of Medical Temperance for the National Woman's Christian Temperance Union. Cloth. Price, $1.25. Pp. 435. Marcellus, N. Y.: Department of Medical Temperance of the National Woman's Christian Temperance Union [1910].

LIGHT THERAPEUTICS. A Practical Manual of Phototherapy for the Student and the Practitioner. With Special Reference to the Incandescent Electric-Light Bath. By J. H. Kellogg, M.D., Author of Rational Hydrotherapy, the Art of Massage, etc. Cloth. Price, $2.50. Pp. 217, with 67 illustrations. Battle Creek, Mich.: The Good Health Publishing Co., 1910.

CLINICAL TREATISES ON THE PATHOLOGY AND THERAPY OF DISORDERS OF METABOLISM AND NUTRITION. By Dr. Carl von Noorden, Professor of the First Medical Clinic, Vienna. Part VIII, Inanition and Fattening Cures. Part IX, Technic of Reduction Cures and Gout. Cloth. Price, $1.50 each. Pp. 103 and 112. New York: E. B. Treat & Company, 1910.

KURZGEFASSTES LEHRBUCH DER KINDERHEILKUNDE FÜR AERZTE UND STUDIERENDE. Von Dr. Carl Seitz, A. O. Universitätsprofessor und Vorstand der Kinderpoliklinik am Reisingerianum in München. Third Edition. Paper. Price, 13 marks. Pp. 558. Berlin: S. Karger, Karlstrasse 15, 1910.

HANDBOOK OF PHYSIOLOGY. By W. D. Halliburton, M.D., Professor of Physiology, King's College, London. Ninth Edition (Being the Twenty-second Edition of Kirkes' Physiology). Cloth. Price, $3 net. Pp. 923, with 592 illustrations. Philadelphia: P. Blakiston's Son & Co., 1910.

LEITFADEN DER EXPERIMENTELLEN PSYCHOPATHOLOGIE. Vorlesungen, Gehalten an der Universität Leipzig. Von Privatdozent Dr. Adalbert Gregor, Oberarzt der Psychiatrisch-Neurologischen Klinik Leipzig. Paper. Price, 5 marks. Pp. 222. Berlin: S. Karger, Karlstrasse 15, 1910.

WHAT YOU OUGHT TO KNOW ABOUT YOUR BABY. By Leonard K. Hirshberg, M.D. A Text-Book for Mothers on the Care and Feeding of Babies, with Questions and Answers Especially Prepared by the Editor. Cloth. Price, 25 cents. Pp. 97. New York: The Butterick Publishing Co., 1910.

JAHRESBERICHT ÜBER DIE FORTSCHRITTE DER INNEREN MEDIZIN IM IN- UND AUSLANDE. Redaktion: Dr. Schreiber im Magdeburg und Dr. Rigler in Leipzig. Bericht über das Jahr 1908. Volume III. Paper. Price, 21.60 marks. Pp. 1506. Leipzig: Dr. W. Klinkhardt, 1910.

AN INDEX OF SYMPTOMS WITH DIAGNOSTIC METHODS. By Ralph W. Leftwich, M.D., Late Assistant-Physician to the East London Children's Hospital. Fourth Edition. Cloth. Price, $2.25 net. Pp. 451, with illustrations. New York: William Wood & Co., 1910.

THE NEW INTERNATIONAL YEAR-BOOK. A Compendium of the World's Progress for the Year 1909. Editor, Frank M. Colby, M.A. Associate Editor, Allen L. Churchill. Cloth. Price, $7. Pp. 702. New York: Dodd, Mead & Co., 1910.

DIE BEHANDLUNG DER KURZSICHTIGKEIT. Von Dr. J. Hirschberg, Geh. Med.-Rat in Berlin. Paper. Price, 3 marks. Pp. 89, with 12 illustrations. Vienna: Urban & Schwarzenberg, 1910.

THE HEALTH OF THE CITY. By Hollis Godfrey, Author of "An Elementary Chemistry," etc. Cloth. Price, $1.25 net. Pp. 372. Boston: Houghton Mifflin Co., 1910.

MEDICAL MEN IN THE TIME OF CHRIST. By Robert N. Willson, M.D. Cloth. Price, $1. Pp. 157, with illustrations. Philadelphia: Sunday School Times Co., 1910.

THE LAWS OF LIFE AND HEALTH. By Alexander Bryce, M.D. Cloth. Price, $2 net. Pp. 421, with illustrations. Philadelphia: J. B. Lippincott Company, 1910.

PROCEEDINGS OF THE NEW YORK PATHOLOGICAL SOCIETY. February and March, 1910. Paper. Pp. 50. Published by the Society. Karl M. Vogel, Editor.

THE IRON MUSE. By John C. Underwood. Cloth. Price, $1.25 net. Pp. 196. New York: G. P. Putnam's Sons, 1910.